

EPA FACT SHEET ABEX CORPORATION SUPERFUND SITE

84) Chestnut Building: Philadelphia, PA 19107

Portsmouth, VA

JAN 11 1993

This update describes some current and future response actions at the Abex Site:

Soil Sampling Resumed

EPA began collecting more samples in the Washington Park Housing Project in December, 1992. A 25 x 25-foot sampling grid has been established. Several samples are being collected in each grid area. The samples are then mixed togather to prepare a sample for analysis. Sampling is scheduled to be completed by early February, 1993, and results will be available to EPA within approximately one month.

Structural Evaluation

On January 13 & 14, 1993, the Remedial Project Manager, a structural engineer and a geotechnical engineer will be onsite to examine the way some homes are built. CDM Federal Programs Corp., an EPA contractor, is scheduling home visits with residents south of the Effingham Playground and some Seventh Street residents. Evaluations at Washington Park will take place soon afterwards. Examining a few properties will help us prepare for the removal of contaminated soil without damage to the More data will be gathered homes. during the design phase of the project.

Old Foundry Building

The wall of one of the old foundry buildings is leaning on the fence of a Seventh Street property. This small building is located on Brighton Street, in the northeast corner of the foundry lot. EPA has asked Geo Engineering, an Abex contractor, to provide a work plan for removing the building. Soon after EPA approves the work plan, the building will be dismantled. EPA will contact residents of the Seventh Street home and other residents near the building prior to this removal work.

During demolition, careful steps will be taken to protect the health of both neighbors and workers. Air monitors will measure air quality within and around the work area. We will sample the homes of the residents who live on Seventh Street, before, during and after dismantling of if lead levels in the air the building. exceed safety standards while work is underway, we will temporarily relocate affected residents until the removal is Because the building is completed. small, work should be completed in a short time.



EPA Environmental Update NOV 30 1992

SOIL SAMPLING AT THE ABEX CORP. SUPERFUND SITE PORTSMOUTH, VIRGINIA

The United States Environmental Protection Agency (EPA) will conduct soil sampling at the Abex Superfund Site beginning December 9, 1992. Samples will be taken on a 25foot grid within the area around the former Abex foundry [700-foot radius]. An on-site mobile laboratory will analyze the soil for the presence of lead contamination. The results of this sampling will help prepare for the long-term (remedial) cleanup. If samples show that surface soils have unsafe levels of lead (over 500 parts per million), EPA will notify residents. EPA will then replace the contaminated soil with clean fill.

The Record of Decision for this site calls for excavation of lead contaminated soils down to the water table. Residents will be temporarily relocated if long-term cleanup work restricts access to their home. EPA must negotiate a Consent Decree before Responsible Parties can begin the cleanup. EPA is now taking legally required steps to notify Potentially Responsible Parties by early 1993.

On November 17, 1992, EPA met in Washington, DC with staff members from US Sen. Warner's and US Rep. Sisisky's offices. They were updated about the Record of Decision and what steps are required before the long-term cleanup begins.

On November 19, 1992 EPA took samples from the Holland property in the presence of state and city officials. This is where a portion of the structure is collapsing toward 7th Street near Brighton. A decision about this property will be made once the sampling results are available (by the end of this year).

On November 24, 1992, EPA held a conference call with P.A.R.I.S., a local group the applied for a Superfund Technical Assistance Grant (TAG). EPA will proapplication as soon as certain items are completed.

For more information, contact: Leanne Nurse (800) 438-2474 or (215)

Region III Environmental Protection 841 Chestnut Building Philadelphia, Pennsylvania 19107

Agency

(215)597 - 9825

Official Business Penalty for Private Use \$300



EPA Environmental Advisory

For Immediate Release 10-12-92 215/597-6920 Contact: Leanne Nurse

EPA STAFF REVIEWS RECORD OF DECISION FOR ABEX SITE

WHO:

United States Environmental Protection Agency (EPA) and the Virginia Department of Waste Management (VDWM)

WHAT:

Briefings and staff availabilities (family discussions) about the Record of Decision (RDD) for the Abex Site

WHY:

To respond to site residents' requests for additional information about the recently issued ROD

WHEN:

TUESDAY, OCTOBER 13, 1992 5:00pm - Brief officials at Portsmouth City Council Chambers

**** 6:00pm - Brief news media at City Hall 6th fl. meeting room ****

7:30->9:00pm - On-site staff availability for site residents at Washington Park Community Building

WEDNESDAY, OCTOBER 14, 1992

12:00->2:00pm - On-site staff availability for site residents

3:00->5:00pm - On-site staff availability for site residents

7:00->9:00pm - On-site availability for site residents

THURSDAY, OCTOBER 15, 1992

10:00->12:00PM - On-site staff availability for site residents

2:00->4:00pm - On-site staff availability for site residents

COMMUNITY RELATIONS ABEX CORPORATION SUPERFUND SITE PORTSMOUTH, VIRGINIA

TES VIII WORK PLAN

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Waste Programs Enforcement Washington, D.C.

Work Assignment No. : C03146
EPA Region : III
Site No. : 3PQ8

Contract No. : 68-W9-0005 Dynamac No. : P583-C01

Prepared By : Dynamac Corporation

Work Assignment Manager : Paula DiLeo
Telephone No. : (215) 440-7340
EPA Primary Contact : Leanne Nurse
Telephone No. : (215) 597-6920
Date Prepared : October 20, 1992

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1.0 INTRODUCTION

Under Technical Enforcement Support Contract No. 68-W9-0005 (TES VIII), the U.S. Environmental Protection Agency (EPA) Region III has requested that Dynamac Corporation (Dynamac) assist with community relations activities associated with the Abex Corporation Superfund Site in Portsmouth, Virginia.

Dynamac will maintain program responsibility for this Work Assignment and has assigned Ms. Paula DiLeo of Dynamac's Region III office in Philadelphia, Pennsylvania, as the Work Assignment Manager.

All activities undertaken on this Work Assignment, as described in this Work Plan, shall be performed in accordance with the policy and guidance for community relations as detailed in EPA's Community Relations in Superfund: A Handbook, (EPA/540/G-88/002, OSWER Directive 9230.0-3B, June 1988). These policy requirements for coordinating community relations activities and the guidance used to supplement and enhance these basic requirements are applicable to all response activities conducted under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The community relations activities under this Work Assignment will be completed on or before June 30, 1993, the end of the Period Of Performance (POP) covered by this Work Assignment, unless subsequently modified by EPA.

1.1 Site History/Background

The Abex Superfund Site is located at the corners of Randolph and Green Streets in Portsmouth, Virginia. The site was used to recycle parts of railroad cars from 1928 through 1978. In 1986, very high levels of lead were identified near and around the site. A Removal Action was conducted from 1986 to 1989 under the authority of the U.S. Environmental Protection Agency (U.S. EPA). During this time, most exposed sources of contamination were securely fenced and excavated or covered to eliminate direct exposure to lead, so it would no longer pose an immediate health threat.

1.2 Statement of Work

EPA has long recognized the importance of having local citizens involved during the development of plans to clean up contaminated sites. Such site-specific community relations activities serve a dual function: (1) They provide a conduit for the dissemination of information concerning plans for cleanup activities to the affected community, and (2) they

provide a mechanism for EPA and other agencies to gain an understanding of the community's impressions about the potential contamination and demands for its clean up.

The community relations efforts requested by EPA under this Work Assignment are designed to involve the public in activities and decisions concerning Superfund sites where past practices have led to potential hazardous waste problems, while also ensuring compliance with the public participation requirements promulgated in SARA.

The specific tasks to be undertaken on this Work Assignment, as listed in the Scope of Work generated by EPA Region III and as directed by the EPA Primary Contact (PC), Mr. Leanne Nurse, provide for community relations tasks. During the conduct of any activities related to this Work Assignment, Dynamac shall use as a guide the Community Relations in Superfund, a Handbook, referenced in Section 1.0 above, as well as close consultation with the EPA PC.

1.3 <u>Conflict of Interest</u>

Dynamac certifies that, to the best of its knowledge, it has no organizational nor assigned staff conflict of interest with respect to the work to be conducted under this Work Assignment.

If any conflict of interest should arise during the performance of any activities relevant to this Work Assignment, Dynamac shall immediately notify the EPA PC for appropriate guidance.

2.0 PROJECT APPROACH

This Work Plan has been developed to delineate the Scope of Work and deliverables, and to provide EPA with a description and explanation of the minimum activities Dynamac will undertake for community relations activities to be conducted at the Site. The Work Plan also includes estimated costs and an approximate schedule for completion of the described activities.

Dynamac will ensure that its approach in conducting the community relations activities is consistent with the needs of EPA by holding meetings between the Dynamac staff and the EPA PC, as needed, to ensure any delays are kept to a minimum.

The project approach is divided into two distinct sections. Section 2.1 discusses those activities necessary to initiate this Work Assignment and to develop the Community Relations Plan (CRP). Section 2.2 discusses those activities anticipated to be implemented as a result of the CRP.

2.1 Development of Background Information & the CRP

2.1.1 Preparation of the Work Plan

Before preparing the original Work Plan, Dynamac reviewed the Work Assignment with the EPA PC. This Work Plan reflects the tasks, personnel, and budget associated with the current understanding of the work to be completed under this Work Assignment. The budget projected below provides for preparing this Work Plan and one Revised Work Plan.

Total Anticipated LOE 20 hours Anticipated Travel Requirements None

2.1.2 <u>Collect and Review Existing Information</u>

Before beginning activities under this Work Assignment, Dynamac will review EPA's files to obtain an overview of the Site, to acquire the names of any interested parties, and to obtain other background information for preparing the CRP and for community relations activities.

Total Anticipated LOE
Anticipated Travel Requirements

15 hours
None

2.1.3 <u>Discuss Site-Specific Information with the EPA Primary Contact, State</u> and EPA Personnel

Preparation of the CRP will be preceded by appropriate discussions with the EPA PC, other EPA staff and Pennsylvania Commonwealth government officials to develop a better understanding of the technical aspects of the Site and the perceptions held by government staff with respect to community interest in the Site.

Total Anticipated LOE
Anticipated Travel Requirements

10 hours None

2.1.4 Compile Mailing Lists

Dynamac will compile an Interested Party and Contact list which will list Federal, state, county and local officials; television and radio contacts; newspaper contacts and advertising rates; civic or community groups; potentially responsible parties. This list will become part of the Community Relations Plan. Dynamac will also provide support in compiling mailing lists of interested citizens. This support may include securing names from file records, meeting sign-in sheets, local tax records, purchasing pre-addressed mailing labels or other means as directed by EPA. This list will not be made public but will be maintained for use in communicating with citizens. Dynamac will update these lists as required.

Total Anticipated LOE
Anticipated Travel Requirements

20 hours None

2.1.5. Conduct Interviews

Dynamac, accompanied by EPA staff, will conduct community interviews with Federal, state and local officials, community leaders, media representatives, potentially responsible parties, and/or interested citizens to provide a base of information for use in preparing the CRP for the Site. These interviews will be face-to-face discussions designed to determine public concern and to evaluate how and when the public will want to be involved in Site response activities. Prior to conducting community interviews, Dynamac will:

• identify interested officials, citizens, and organized groups;

- review with the EPA PC a list of interview candidates and select appropriate individuals for interviews;
- discuss with the EPA PC questions to be asked during the interviews; and,
- schedule the interviews.

Total Anticipated LOE
Anticipated Travel Requirements

50 hours 2 trips to Portsmouth, VA

2.1.6 Develop the Community Relations Plan

The revised CRP will document the community's concerns about the Site as identified during the community interviews. The existing community relations plan for Abex will need revisions in order to incorporate issues that are recorded during community interviews.

Dynamac anticipates that the CRP for the Site will include the following sections:

1. Overview of the Community Relations Plan

This section will outline the purpose of the CRP and the distinctive or central features of the community relations effort for the Site. Any special characteristics of the community and the Site will be discussed. This overview will identify objectives specific to community relations during the remedial response and special circumstances to be addressed.

2. <u>Capsule Site Description</u>

This section will provide the basic historical, geographical, and technical details necessary to understand why the Site is listed on the National Priorities List (NPL). Topics that will be covered include:

- Site location and relationship to homes, schools, playgrounds, businesses, lakes, streams, and parks;
- history of Site use and ownership;
- type of hazardous substances at the Site;

- nature of threat and potential threat to public health and the environment;
- history of inspections and studies conducted at the Site; and,
- lead agency responsible for the Site.

Maps showing the location of the Site within the state and locality will also be included.

3. Community Background

The community background section will be divided into three parts:

- community profile, which will address and analyze key local issues and interests;
- chronology of community involvement, which will identify how the community has reacted to the Site in the past; and,
- description of key community concerns, which will analyze the major public concerns regarding the Site and the remedial process proposed to deal with those concerns.

4. Highlights of the Community Relations Program

This section will summarize the design for the community relations program at the Site. Topics to be covered in this section include:

- Site specific methods of communication, activities or other techniques;
- resources to be used in the community relations program (e.g., local organizations, meeting places);
- key individuals or organizations that are expected to play a role in community relations activities; and,
- areas of special sensitivity that must be considered during community relations and remedial activities.

5. Community Relations Activities and Timing

This section will specify the types of community relations activities, both required and recommended, to be conducted at the Site and

when they will be conducted. This section will also identify additional activities that might be appropriate at the Site if concern increases or shifts.

A budget estimate for each community relations technique to be used, as well as a proposed implementation schedule for each technique employed, will be developed and included in this section.

Appendix A: Contact List of Key Community Leaders and Interested Parties

The names, addresses, and telephone numbers of all officials and group representatives contacted during the community interviews, along with others who will receive information about Site developments, will be listed in this Appendix. However, the names, addresses, and telephone numbers of private citizens contacted for interviews will not be included as a part of the plan that is made public. These names, addresses, and telephone numbers should, however, be included in a mailing list compiled for the Site. The contacts identified in Appendix A should include:

- Federal elected officials:
- state elected officials:
- local elected officials (e.g., county and city or township);
- potentially responsible parties;
- environmental groups and citizens' groups;
- EPA Regional officials (e.g., Superfund Community Relations Coordinator, Remedial Project Manager);
- state environmental and health department officials;
- local health department, safety officials (e.g., fire, police), and township officials; and,
- press contacts (television, radio, newspaper) including identification of possible talk/interview shows.

Appendix B: Suggested Locations for Meetings and Information Repositories

Facilities will be recommended for holding public meetings, including school gyms, town halls, and library meeting rooms. Potential locations for information repositories will also be presented, which could include local libraries, town or city halls, and county offices. Hours that the potential information repositories are accessible will be included, along with the names of contacts for getting into the buildings.

Appendix C: Technical Assistance Grant

This appendix will consist of a brief description of the purpose of the Technical Assistance Grant and how interested groups can obtain additional information.

Appendix D: Glossary of Technical Terms

This appendix will consist of a dictionary of the technical terms appearing throughout the Community Relations Plan. This glossary is designed to make the Community Relations plan more readable to "non-technical" members of the community.

Total Anticipated LOE for CRP 50 hours

Preparation

Anticipated Travel Requirements None

2.2. Implementation to Community Relations Activities

Dynamac will provide assistance to EPA in selecting and implementing the community relations activities and techniques that are appropriate for the Site. These activities could include:

2.2.1 Prepare and Distribute Fact Sheets

Dynamac will prepare quarterly fact sheets for the Site for the duration of this Work Assignment, unless otherwise directed by the EPA PC. These quarterly fact sheets will summarize the status of community relations and remediation activities during the previous two months and will be written in a nontechnical manner for public distribution. Printing and distribution of the bimonthly fact sheets will take place after EPA has reviewed the contents of these fact sheets. Fact sheets

will be distributed to the community by Dynamac according to the method specified by the EPA PC. The projected budget below provides for the preparation of approximately four fact sheets, depending upon their complexity and the number of revisions required.

Total Anticipated LOE 100 hours
Anticipated Travel Requirements None

2.2.2 Maintain and Update the Information Repository

If an information repository has not been established, Dynamac will identify libraries, schools, or other publicly-accessible locations in Portsmouth, Virginia, in which to house written and audiovisual materials concerning the Site. The selection of an information repository for the Site will be based on its proximity to the affected community, the availability of photocopying machines for public use, accessibility for handicapped individuals, adequacy of the space, and the foreseeable security of the repository materials.

After arrangements have been made for the location of the repository, all written and audiovisual materials concerning the Site will be placed in the repository and made available for public review. Additional information, e.g., general information on Superfund, may be included in the repository as deemed necessary by the EPA PC. The public will be informed of its location and the availability of the documents. Depending on the level of community concern, or the location of the Site relative to surrounding communities, more than one repository may need to be established.

Total Anticipated LOE 15 hours
Anticipated Travel Requirements None

2.2.3 Prepare Newspaper Advertisements

Dynamac will prepare display advertisements for placement by EPA in local general distribution newspapers. These shall serve as public notices for official announcements of EPA decisions, public meetings, major project milestones, or soliciting public comments.

Total Anticipated LOE 30 hours
Anticipated Travel Requirements None

2.2.4 Provide News Releases/Press Kits to Media

Dynamac will provide EPA with text to be used in news releases to be issued by EPA. Dynamac will not directly issue press releases. These news releases will inform the community about Site plans, discoveries of any significant environmental findings, or other significant information. Dynamac will also assist in preparing any required press kits for local media.

Total Anticipated LOE
Anticipated Travel Requirements

25 hours None

2.2.5 Arrange and Participate in Briefings and Public Meetings

Dynamac will provide logistical support for meetings with citizens including the preparation of agendas, securing a stenographer, preparing slides and overhead transparencies, arranging for site maps and/or photographs, videotaping the meeting if requested by EPA, assisting with presentation practice and providing a summary of the meeting. While it is difficult to anticipate the level of support which will be required by EPA, Dynamac estimates that the projected budget below will be sufficient to provide basic support at two meetings or workshops.

Dynamac, if requested by EPA, will also design and provide support for any educational workshops EPA may decide to conduct regarding the Site. This support could include providing technical staff, the preduction of more sophisticated audiovisuals, or other tasks requested by A. Budget for this task is not currently provided in the cost estimate for this Work Plan.

Dynamac, given sufficient advance notice, will provide all materials to be used at any meetings or workshops in advance to EPA for their review and approval.

Total Anticipated LOE
Anticipated Travel Requirements

50 hours 2 trips to Portsmouth, VA

2.2.6 Revise the Community Relations Plan

The CRP will be reviewed bi-monthly to insure it is up-to-date. Revisions to the CRP will be made, as appropriate, as additional knowledge is gained about the environmental conditions at the Site, the steps that will be taken to remediate the Site, and/or public interest in the Site and its remediation. Dynamac anticipates that this will be done once the final decision has been made by the EPA on the remedial action to be taken at the Site, and the projected budget below provides for one revision of the CRP. Dynamac will undertake the revision of the CRP when directed by the EPA PC.

Total Anticipated LOE 40 hours
Anticipated Travel Requirements None

2.2.7 Prepare Proposed Remedial Action Plan (PRAP) or PRAP Fact Sheet

At the direction of EPA, Dynamac may assist in the development of the Proposed Remedial Action Plan. Dynamac will work from the Feasibility Study, in cooperation with the Site Remedial Project Manager, and ensure the document is readily understandable by non-technical readers. If the PRAP is too lengthy or too technical to hold the interest of most community members, Dynamac may develop a fact sheet describing the PRAP. Budget is provided below for performing one of these tasks.

Potal Anticipated LOE 30 Hours
Estimated Travel None

2.2.8 Prepare a Responsiveness Summary

Dynamac, after consultation with EPA staff, will prepare a responsiveness summary that will outline public comments and questions raised during the public comment period on the draft feasibility study. The responsiveness summary will also contain the EPA's responses to these comments and questions. Dynamac will provide the responsiveness summary to EPA in a timely manner based on the tight time schedule of completing the Record of Decision.

Total Anticipated LOE 30 hours
Anticipated Travel Requirements None

2.2.9 Conduct Ouantitative Research

EPA is presently considering adding a quantitative research process to its community relations projects to obtain statistically representative information on the community concerns for each Superfund site. At the direction of EPA, Dynamac may conduct this research for the Site by requesting an amendment to this Work Assignment. Budget for this task is not currently provided in the cost estimate for this Work Plan.

2.2.10 Monthly Progress Reports

Dynamac will also prepare a monthly progress report for the duration of this Work Assignment. This report will summarize the status of each assigned task active during the month, including total hours expended on each task at the Site and projected activities for the following month. The report will also list the total LOE hours expended to date under the Work Assignment. This report will be submitted to EPA by the twentieth (20th) day of the month for the entire active life of this Work Assignment. Copies will be sent to the EPA Regional Project Officer, Primary Contact, and Contracting Officer.

Total Anticipated LOE
Anticipated Travel Requirements

15 Hours None

TOTAL ANTICIPATED LOE FOR THIS 500 HOURS WORK PLAN

3.0 DELIVERABLES

Deliverables under this Work Plan will include the Site Community Relations Plan, fact sheets, newspaper advertisements/releases, the responsiveness summary, trip summaries and other narrative reports as specified by EPA.

All deliverables will be submitted to EPA in draft form first, unless specified otherwise by EPA.

4.0 WORK SCHEDULE

The following chart shows the activities to be conducted under this Work Plan and the approximate period of time Dynamac anticipates the activities will take place. This schedule will be adjusted as directed by the EPA PC.

Activity	Anticipated Period of Time
Work Plan Approval Process	October 20 - November 29, 1992
File Review/EPA Meetings	December 7 - December 21, 1992
Conduct Community Interviews	Within 60 days of approval of this Work Plan
Establish Information Repository	Within 60 days of approval of this Work Plan
Maintenance of Repository	Continuous through end of Work Assignment
Prepare CRP	Within 40 days of completion of community interviews
Community Relations Implementation Activities	Continuous through end of Work Assignment

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5.0 PERSONNEL

The following Dynamac Resource Pool shows the personnel assigned to this Work Assignment and their professional level. If any change in personnel is required, Dynamac will closely monitor the area of expertise and professional level of newly assigned personnel.

Professional:

E. Dennis Escher TES VIII Program Mana	P-4 ger	Charles Hale NE Operations Manager	P-4
Robert Stecik Regional Manager	P-4	Paul Stavros QA Manager	P-3
Paula DiLeo Work Assignment Manag	P-2 er	Kathy McLaughlin Work Assignment Manager	P-2
Andrew Post Community Relations Spe	P-2 ecialist	Thomas Kennelly Cost Control Admin.	P-1
Matt Chase Contract Assistant	P-1		
Clerical:			
Shirley Weaver Dynamac Headquarters	N/A	Dynamac Philadelphia	N/A

The following is a summary of the estimated LOE, by professional level, that is required to complete the activities described in this Work Plan:

P-4	25
P-3	20
P-2	440
P-1	_15
	500

Required secretarial/clerical support for this assignment is estimated to be 100 hours.

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6.0 SUBCONTRACTORS/CONSULTANTS

Dynamac anticipates using a subcontractor to provide stenographic services as detailed in Section 2.2.6. Dynamac presently plans to use in-house services to generate slides, overhead transparencies, fact sheets, and other materials as may be required by EPA. However, in order to meet time constraints, Dynamac may require the services of a subcontractor to provide these materials. This will be decided on a case-by-case basis after consultation with EPA.

Dynamac does not anticipate using any other subcontractors or consultants in connection with this Work Assignment.

7.0 EXCEPTIONS TO THIS ASSIGNMENT

The Scope of Work presented in this Work Plan is based on the basic preliminary information provided to Dynamac by EPA. Changes in the Scope of Work and work schedule may be recommended due to delays in receiving requested data, the unavailability of additional necessary information, or conditions specific to this Site that adversely impact the Scope of Work and the project schedule. The work schedule assumes that the Work Plan will be approved by EPA within the 60-day period. Additional changes may also be recommended if deemed necessary upon review of new information and data. If changes are required, Dynamac shall request an amendment to the Work Assignment.

8.0 QUALITY ASSURANCE/QUALITY CONTROL

As a standard practice, all personnel involved in on-site activities in connection with this assignment will use logbooks to provide documentation throughout the duration of this assignment. These will be considered official EPA logbooks, and therefore may be accessed by other parties through the Freedom of Information Act. The logbook entries will be dated, will be legible, and will contain accurate and inclusive documentation of all activities performed or monitored for each Work Assignment task.

As these logbooks may later serve as resources for written reports, and may also serve as evidence in future legal proceedings, all entries will contain only factual language and observations. The language used for entries will be as objective and factual as possible, free of personal feelings and terminology that would be inappropriate when read by any and all parties at a later date.

All work performed on this Work Assignment by Dynamac personnel will be performed in accordance with the Dynamac Quality Assurance Program incorporated by reference in the TES VIII contract. All of the activities delineated in this Work Plan may be the subject of a system audit conducted by the Dynamac QA staff to check on proper adherence to the Dynamac QA Program. Such audit results will be included in the appropriate Monthly Progress Report.

Management oversight of all activities conducted in relationship with this Work Assignment will be provided by Ms. Paula DiLeo, Dynamac's Work Assignment Manager, Mr. Robert E. Stecik, Dynamac's TES VIII Regional Manager, and Mr. E. Dennis Escher, Dynamac's TES VIII Program Manager.

9.0 COST ESTIMATE

The estimated costs for activities described in this work plan for community relations support to EPA Region III at this Site are provided on the following pages.

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WORK ASSIGNMENT (WA) NO.:	C03146	DATE: OCTOBER PAGE: 1 of 3	20, 2332
WA: ABEX CORP., PORTSMOUTH		CONTRACT NO. 68	
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WORK ASSIGNMENT (WA) NO.: C03146		PAGE: 2	of 3	
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TRAVEL:		=======================================	3832223 <u>4</u>	
Unit Item Description Rate(\$) Unit	Estim. Units /Trip	No. of People /Trip	No. of Trips	Extended Price
From Philadelphia, PA to Portsmouth, Airfare: \$520.00 roundtrip Car Rental(w/fuel): \$55.00 day Lodging: \$60.00 day Meals: \$26.00 day	VA, PA 1 2 1 2	& return	4 4 4 4	\$2,080 \$440 \$240 \$208
	TOTAL TE	RAVEL		\$2,968
OTHER DIRECT COSTS(ODCS):				
Item Description	Unit	Rate(\$) /Unit	Est. Qty.	Extended Price
Computer Equipment Usage: Federal Express: Audiovisuals:	hour letter	\$6.00 \$9.00	100 49	\$600 \$441
Overheads: Site Maps: Newspaper Advertisement (1/4 page ad Stenographer:	each each i): ad meeting	\$5.00 \$500.00	125 50 4 2	\$250 \$250 \$2,000 \$1,000
FACT SHEETS (6 Separate FSs) - each recycled, colored, paper for	shall be	e 2-sided, ailing w/o	on 11" x envelope	17 " 80# s.
Fact Sheet # 1-6: Special stock copying (11x17): Special 11 x 17 80# Colored Stock: Fact Sheet Pre-Addr. Labels: Fact Sheet folding:	image page label each	\$0.070 \$0.150 \$0.046 \$0.080	1000 500 500 500	\$70 \$75 \$23 \$40
		1 Fact sh	eet 0 x	\$208 6
		6 Fact sh	eets @	\$1,248
	TOTAL OF	OCs:		\$5,789 ========

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DYNAMAC CORP. - INITIAL COST ESTIMATE DATE: OCTOBER 20, 1992

WORK ASSIGNMENT (WA) NO.: C03146 PAGE: 3 of 3

WA: ABEX CORP., PORTSMOUTH VA, CR CONTRACT NO. 68-W9-0005

INDIRECT RATES: PHILADELPHIA & ROCKVILLE

		MONTHS	RATE	TOTAL A	VG. RATE
FRINGE BI YEAR I YEAR II	ENEFITS: (1992) (1993)	2.5 6 	35.50% 35.50%		35.50%
PHILADELI YEAR I YEAR II		2.5 6 8.5	35.00% 35.00%		35.00%
G & A: YEAR I YEAR II	(1992) (1993)	2.5 6 8.5		46.25% 111.00% 157.25%	18.50%
ROCKVILLE YEAR I YEAR II	OVERHEAD: (1992) (1993)	2.5 6 8.5	56.00% 56.00%		56.00%

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Community Relations Plan Abex Corporation Site

Portsmouth, Virginia

May 1990

Submitted By: Department of Waste Management Superfund Program

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Community Relations Plan Abex Corporation Superfund Site Portsmouth, Virginia

I. Introduction

This Community Relations Plan (CRP) highlights the issues of community interest and concern regarding the Abex Corporation Superfund Site, and describes the community relations activities to be undertaken by the Virginia Department of Waste Management (DWM) during the remediai action scheduled for the site. The purpose of the Community Relations Plan is to ensure that an appropriate, effective program is in place to provide citizens with public participation opportunities, and to address specific areas of concern. The Community Relations Plan is divided into the following sections:

- The Abex Site: Summary and History
- The Abex Site Community
- · The Community Relations Program for This Site

Section one provides a summary of the site history and an infromal chronology of remedial activities to date. Section two describes the site area community, and related concerns and interests with regard to the Superfund site." Section three outlines the community relations program that is recommended as appropriate for this site, listing specific activities that will be undertaken throughout the remedial process.

The CRP is based on information from the Preliminary Assessment (PA) and Site Investigation (SI) reports; the Hazard Ranking Score (HRS) data; the Remedial Investigation (RI) workplan; the Administrative Order for Consent (AOC); and miscellaneous documents that will be found in the Administrative Record File for this site. Community-specific information was gained throu in-person intereviews with community representatives. The Virginia DWM is the lead agency for the Abex site, and as such is responsible for managing the remedial and community relations programs conducted at the site. The Environmental Protection Agency (EPA) will be working in conjunction with the VDWM, and is the support agency for the site activities.

The appendix includes a mailing list of key representatives who will be kept apprised of the remedial activities on a regular basis. The mailing list also includes an "interested residents" section, which will be kept confidential in accordance with the Privacy Act. In addition, the appendix includes chemical fact sheets on lead, possible locations for public meetings and the information repository, and a dictionary of Superfund terms. The CRP will also be located in the information repository and Administrative Record File, along with other documents that are relevant to the Superfund site activities and decisions. Each of these files is open for public review.

The Abex Corporation Site

A. Site Description

The Abex Corporation site occupies approximately two acres at the corner of Randolph and Green Streets in Portsmouth, Virginia. The site was the location of a brass and bronze foundry, operated by the Abex Corporation from 1928 to 1978, where parts for railroad cars were manufactured. During the production era of Abex Corporation, lead and other hazardous substances may have been released to the air from the site. A substantial amount of lead-laden furnace sands were deposited on an adjoining one-acre area, referred to as the "fill area". While Holland Investment and Manufacturing Company of Portsmouthcurrently owns the former processing area, Abex Corporation retains ownership of most of the fill area.

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The Abex site is located in one of Portsmouth's oldes sections, incorporated into the City's limits in 1784. The area is a densely populated urban area, with a mixture of residential row houses and housing developments, single family homes, and industrial operations. The site neighborhood is within three miles of downtown Portsmouth. The U.S. Naval Shipyard is approximately 3/4 mile southeast of the site, encompassing about 800 acres. The shipyard has been in operation since 1767.

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The primary concern of the Department of Waste Management and the Environmental Protection Agency (EPA) is lead contamination on and around the site. Lead concentrations of up to 42 times the acceptable amount have been identified on and near the site. Other metals that have been identified include copper, tin, nickel, zinc, and antimony. Currently, no water from the water table aquifer is used for potable (drinking) purposes.

B. Site Remedial History

In 1984, The Environmental Protection Agency (EPA) identified elevated levels of lead in the soil of the fill area. Abex Corporation also found significant amounts of contamination in the soil of the fill area and the old process area. EPA collected 34 wipe samples on home surfaces and 9 housepaint samples in residential areas around the site, and found the presence of lead, copper, and tin on surfaces within the breathing zone level. After analyzing these samples, the Agency for Toxic Substances and Disease Registry (ATSDR), a branch of the Center for Disease Control in Atlanta, Georgia, a commended immediate remedial action at the Abex site. Abex voluntarily signed a CERCLA Emergency Consent Order with EPA on August 11, 1986, for an emergency removal action at the site.

In May of 1986, the Portsmouth Health Department conducted a study, taking 110 soil samples from within 1 mile of the site, to determine whether there was any correlation between lead levels at the site and elevated lead levels of children living in the area. The study concluded that lead levels in the blood of nearby children were most likely a result of lead-based housepaint.

The emergency removal action was conducted between October 1986 and 1989. Soils were excavated, back filled, and re-graded and sodded; the area known as the "Abex lot", the McCready lot, an area in front of the Holland Building, and Brighton Street were all paved; a security fence was placed around the Abex lot and the McCready lot; and a catch basin and storm drain were placed on the Abex lot to control storm water runoff.

The Abex site, based on these studies done in 1983 through 1986, was determined to be a threat to public health and the environment, and was proposed to the National Priorities List (NPL) on June 16, 1988. The Hazard Ranking System (HRS) score for the site was 36.53.

On June 2, 1989, EPA notified Abex of its potential liability for the cleanup and related costs of the Abex site, and designated them a Potentially Responsible Party (PRP). In this notification, EPA

announced its intent to conduct the Remedial Investigation and Feasibility Study (RI/FS), and gave the corporation the opportunity to submit a "good faith" offer to conduct the work. Abex Corporation, in turn, submitted a good faith proposal to conduct the RI/FS. Abex Corporation retains its right to continue to object the site's inclusion on the National Priorities List (NPL)

The workplan for the RI/FS was due January 19, 1990. The Department of Waste Management (DWM), in concert with the U.S. EPA, will reviewed the workplan and submitted comments in March. An additional round of comments may be forwarded to Abex Corporation by the end of May. Once the workplan is approved, the corporation will have ten days to begin the RI/FS, which will concentrate on a 700-foot radius of the Abex site. The Department of Waste Management would like to see the remedial work begin by late July or early August.

III. The Site Community

This section provides a summary of the site community, and includes concerns and interests regarding the Superfund site. Information for this section was taken from DWM site files, and in-person interviews with representatives of the City of Portsmouth.

A. Community Profile

The City of Portsmouth is located in Southeastern Virginia, just Southwest of Norfolk. The population of Portsmouth is 111,000 people. The site community is located in an urban industrial area that is one of Portsmouth's oldest sections. The area is densely populated, with a mixture of row-type houses, public housing developments, single-family dwellings, and industrial businesses. The U.S. Naval Shipyard is 3/4 mile southeast of the site community. Several schools and daycare centers are located within a one-mile radius of the site. The WAVY-Channel 10 television studios and offices are located within view of the site.

The inhabitants of the site community represent a mixture of educational and income levels. City officials indicate that many residents in the neighborhood bordering on the site are primarily of African-American descent, and are employed primarily in blue-collar industrial jobs or receive subsidies through social services. According to the 1980 census, approximately 20,130 people live within one mile from the site. The Washington Park housing development bordering the site provides residence to a population of approximately 457 people, including an estimated 267 minors. The primary employers of the City at large are municipal and federal government installations.

In general, the City of Portsmouth has been undergoing a period of revitalization, with a number of harbor-side retail establishments developed. Development projects such as Portside, Olde harbour Market, and other tourist attractions are examples of the revitilization effort. City officials interviewed in March 1990 expressed that, because Portsmouth competes with other nearby incorporated cities, economic development and positive media coverage are important. The recent reductions in the military spending, given the wide employment base provided by federal defense installations in the area, is a major concern for the local economy.

B. History of Public Involvement

All of those interviewed stressed that interest levels are, at the present time, very low. Citizen interest seems to peak with increasing media coverage of site activities. Interest was higher, for example, in the early 1980's, when high blood levels of lead in Washington Park children were allegedly the result of the Abex lead contamination. In 1981, Abex Corporation awarded five children who had high blood levels a combined settlement of \$45,000 out of court. A City of Portsmouth public health official said that the City is currently reviewing the lead level tests, and will issue findings. On the whole, other issues are of a higher priority to nearby residents, unless a problem surfaces that impacts

C. Specific Community Concerns & Interests

At the time of the community interviews, there was some fluctuation in the City's government, and an election was held. Several incumbents were unseated. This resulted, prior to the election, in some wariness on the parts of several City officials interviewed with regard to the possible negative publicity that might be generated about the site during their campaigns. Mr. Robert Creecy, Portsmouth Management Services, and Ms. Carol Pratt, Portsmouth Public Information Officer, were designated as the primary contacts for the City for information concerning the Abex site remedial activities.

Several officials expressed concern that the media would use "scare tactics" while covering site remediation events, thus causing undue fear among local residents. Officials also said that the removal action done between 1986 and 1989 caused more problems than it solved, in their minds, as the area has become a "litter repository", all the trees were cut down around the area, and constructive use of the property has been blocked by the lengthy Superfund process. Once official said that the City would like to use the site for a parking lot or playground, both of which are needed in the neighborhood.

City officials are also very concerned that negative, or unfair, media coverage would hurt revitalization or economic development efforts. City officials, again citing the competition with other area cities for tourism, said negative publicity would "make it tough to promote the area" for tourism or development.

During research for this community relations plan, none of the local organizations who have environmental agendas were aware of the Abex site. While they expressed interest at being on the mailing list for information, the site remediation was not an issue of tremendous interest to them at this time. According to the City of Portsmouth, no local groups formed specifically to monitor or protest site activities. Officials did, however, expect interest levels to grow as media coverage of the remediation increases, and suggested that several groups might have interest in the remediation: Prentiss Park Civic League; Washington Park Tenant's Council, Effingham Conservation Area, and the Black Concerned Citizens League. Letters from the DWM explaining the upcoming remediation and community relations opportunities were sent to representatives of each group in May. The DWM received no responses or inquiries from any of these individuals/groups as a result of the mailing.

IV. The Abex Site Community Relations Program

By providing the community with opportunities to participate in the Superfund remedial process at the Abex site, the concerns and interests of the citizens with regard to the site will begin to be addressed. The purpose of the community relations program is to ensure that opportunities exist for the participation of interested individuals; that questions, concerns, and requests are met with accurate and timely responses; and that information about the site is available in a format understandable to the layperson. The community relations program will also serve the purpose of coordinating this information about findings and developments at the site between the various agencies, the media, and the public.

A. Community Relations Objectives

- 1. Ensure active and regular coordination of activities with EPA and local officials. The Virginia Department of Waste Management (DWM) is the lead agency for the Abex site. It is crucial for EPA community relations staff and local officials to be kept abreast of the DWM activities, findings, and new developments at the site. This will allow the DWM community relations staff to respond more effectively to citizen inquiries, make referrals as necessary, and generally coordinate community relations activities.
 - 2. Provide accurate and timely information about the site to local officials, residents, media, and

other interested parties. Concise and easily understandable information about the technical activities at the site must be provided to key publics in a timely manner. Information should include the purpose, schedule, and outcome of DWM remedial activities. Where information cannot be released due to legal privilege a clear explanation should be released to the public to that regard. By identifying special situations where more detailed information must be provided, DWM community relations staff will be able to respond with appropriate activities efficiently and effectively. Information may be disseminated through public meetings or informal workshops, fact sheets, news releases, and the information repository as appropriate for the interest level in the community. Working with, or through, the local housing authority is advised.

- 3. Identify a central contact for the public at the DWM. The DWM Community Relations Officer has been designated as the primary spokesperson and public liaison for the remedial action at the site. The CRP can provide timely, accurate, consistent, and understandable responses to questions raised by the public, local officials, or the media.
- 4. Help area residents, officials, and media understand the policies, procedures, and requirements of the Superfund Program. By circulating information about the Superfund process, DWM community relations staff will be able to dispel any confusion or rumors about the agency roles at the site, technical activity and findings, and schedule. This information should be distributed to citizens, media, local officials, and other key contacts, in a manner deemed appropriate, and should be deposited in the information repository file at the Portsmouth Public Library, located at 601 Court Street.

B. Community Relations Activities

The following is a list of community relations activities that may be conducted throughout the Remedial Investigation and Feasibility Study (RI/FS), and upon the release of the FS report and Proposed Plan. The purpose of these activities is to encourage communication between agency staff and community members, ensure that the community is provided with accurate and timely information, and enable interested citizens to participate in the Superfund cleanup process if they wish to. This list of community relations activities serves as a starting point, and may be modified as work progresses or if significant changes occur in public interest levels.

1. Establish and Maintain Information Repositories.

<u>Purpose:</u> To ensure that accurate, understandable, and appropriate information is available to interested citizens; to comply with CERCLA, SARA, and the NCP.

Contents: Fact sheets, technical summaries, site reports (including the RI/FS workplans, community relations plan, RI/FS reports, and the Proposed Plan), general information about the Superfund process, news clips, chemical fact sheets, and other relevant information. Please note that the Information Repository File supplements the Administrative Record File, which will also be located at the repository.

Location: The Administrative Record File for this site will be located at the Portsmouth Public Library, main branch, 601 Court Street, Portsmouth, Va. 23704. A copy of all files will also be available at the Department of Waste Management, 101 N. 14th Street, 18th Floor, Richmond, Va. 23219.

Timeframe: During the Remedial Investigation.

Designate a DWM spokesperson and public liaison.

<u>Purpose:</u> TO provide consistent, accurate, and understandable responses to questions from media, local representatives, and citizens throughout the remedial process; and to ensure that

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efforts with these groups are coordinated; to comply with NCP §300.67(b).

Contact: DWM Community Relations Officer, Ms. Jamie Walters, (804) 225-3268, Department of Waste Management, 101 N. 14th Street, 18th Floor, Richmond, Va. 23219.

<u>Timeframe:</u> At the beginning of the Remedial Investigation.

3. Conduct briefings on site activities.

<u>Purpose:</u> To inform key EPA and local officials, media, and citizen representatives of the schedule of activities and technical findings throughout the process.

<u>Timeframe:</u> At the beginning and end of the RI/FS, upon completion of the FS and release of the Proposed Plan, as necessary.

4. Conduct Telephone Availability.

<u>Purpose:</u> To brief key contacts on site milestones, to determine any changes in public interest levels, to announce any unforeseen developments, to respond to concerns and questions.

Timeframe: Between briefings; as necessary.

5. Conduct informal meetings or workshops.

<u>Purpose:</u> To monitor and assess citizen concern, answer questions about the process, and explain plans and activities under consideration and in operation.

<u>Timeframe:</u> As necessary or requested.

6. Prepare Fact Sheets or Technical Summaries.

<u>Purpose:</u> To provide information about the Superfund process and the Abex site, to inform the community about site-related activities, and to explain findings of the RI/FS, Proposed Plan, and subsequent process in understandable, clear terms.

<u>Timeframe:</u> At process milestones; as necessary.

7. Prepare news releases.

<u>Purpose:</u> To ensure that the media, and thus the general public, receives accurate and timely information about the Superfund process and site-related activities.

Timeframe: At process milestones; as necessary.

8. Hold a public comment period on the Feasibility Study Report and Proposed Plan.

<u>Purpose:</u> To provide for citizen input on site-related issues and decisions regarding the preferred remedial alternative; to comply with SARA §117 (a)(2) and NCP §300.67(d).

Timeframe: Upon release of the Proposed Plan.

9. Offer an opportunity for a public meeting.

Purpose: To provide for citizen input on site-related issues and decisions regarding the

preferred remedial alternative; to respond to citizen and media inquiries and concerns; to comply with SARA §113 and §117(a)(2) and NCP§300.67(d).

Location: A list of potential meeting locations can be found in the appendix.

Timeframe: At the beginning of the public comment period on the Proposed Plan.

10. Publish notices in newspapers of general circulation.

<u>Purpose:</u> To announce the availability of Administrative Record File, the start of the Remedial Investigation, the release of the Proposed Plan and Feasibility Study, the public comment period on the Proposed Plan, the Record of Decision, and the RD/RA Consent Decree; to comply with SARA §117(a), (b), and (d); and SARA §113 (k)(2)(B).

Timeirame: Upon the availability of the above-mentioned activities and documents.

11. Prepare a Responsiveness Summary as Part of the Record of Decision.

<u>Purpose:</u> To ensure that public input and comments are incorporated into the selection of the remedial alternative selected for the site; to comply with SARA §113 and §117(b) and the NCP §300.67 (e).

Timeframe: At the close of the public comment period on the Proposed Plan.

12. Revise the Community Relations Plan.

<u>Purpose:</u> To reflect significant changes in the level and nature of the community concern during the post-RI/FS and ROD stage, and to update the schedule of community relations activities for the RD/RA and as necessary.

Timeframe: After the ROD has been released, and as necessary.

C. COMMUNITY RELATIONS SCHEDULE Abex Corporation Superfund Site Portsmouth, Virginia

ACTIVITY	MAR	APR	MAY	JUN	JUL	AUG	SEP	oct	NON	DEI:	MAL	FEB	MAR	APR
Conduct CR Interviews	x	X	x											
Draft Community Relations Plan		x	x											
Locate Information Repository			x											
Establish Information Repository			x				•							
Establish Administrative Record			x	x										
RI/FS Workplan Approved				x	21									
RI/FS Press Release				x				x			•	x		
RI/FS Fact Sheet				x		;		X				x		
Informal Meetings/Workshops	x	x	X as	needed										
Telephone Availability	As nee	eded												
Public Meeting	Propos	sed Plan												

FEASIBILITY STUDY/PROPOSED PLAN and RECORD OF DECISION (ROD) PNASE

ACTIVITY	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC	JAN	FEB	MAR	APR	HAY	JUN
Revise CRP	x													
Review Administrative Record & Information Repository														
Site Update Fact Sheet		x												
Proposed Plan Complete														
Public Notice published & mailed														
Public Comment Period														
Public Meeting														
Responsiveness Summary						•								
ROD Public Notice														
ROD Fact Sheet mailed														
CRP ed for RD/RA					1								l	

Appendix A
List of Contacts
and

Interested Parties

Abex List of Contacts and Interested Parties

A. Federal Elected Officials

The Honorable Norman Sisisky
United States House of Representatives
426 Cannon House Office Building
Washington, D.C. 20515
(202) 225-6365

The Honorable John W. Warner United States Senate
421 Russel Office Building Washington, D.C. 20510
(202) 224-2023

The Honorable Charles S. Robb Russell Senate Office Building Delaware Ave. and C St. NE Washington, D.C. 20510 (202) 224-3121

B. Federal Agency Officials

Kim Hummel
EPA Project Officer
841 Chestnut Building
Philadelphia, PA 19107
(215) 597-3435

SEAL
Leanne Nurse (3PAGG)
EPA Community Relations Coordinator
841 Chestnut Building
Philadelphia, PA 18107
(215) 597-9871- 6920

C. State Elected Officials

The Honorable Douglas Wilder Office of the Governor P.O. Box 1475 Richmond, VA 23212 (804) 786-2211

The Honorable William S. Moore, Jr. Member, Virginia House of Delegates P.O. Drawer 610 Portsmouth, VA 23705 (804) 399-3600

The Honorable Kenneth R. Melvin Member, Virginia House of Delegates 601 Dinwiddie Street Portsmouth, VA 23704 (804) 397-1009

The Honorable Johnny \$. Joannou Member, Virginia State Senate 709 Court Street P.O. Box 1064 Portsmouth, VA 23705-1064 (804) 399-1700

D. State Agency Officials

Jamie Walters
Community Relations Officer
Department of Waste Management
101 North 14th Street
Monroe Building, 18th Floor
Richmond, VA 23219
(804) 255-3268

Mr. Gerry Yagel Water Control Board Church Street Kilmarnock, VA 22482 (804) 435-3181 (SCATS 634-3489)

Mr. Achyut Tope
Department of Waste Management
18th floor Monroe Building
Richmond, VA 23219
(804) 255-3263

Mr. K.C. Das, Ph.D Director of Special Programs Department of Waste Management 101 North 14th Street Monroe Building, 11th Floor Richmond, VA 23219

E. Local Officials

The Honorable Gloria O. Webb Mayor, City of Portsmouth P.O. Box 820 Portsmouth, VA 23705 (804) 393-8746

The Honorable B. Wayne Orton Interim City Manager City of Portsmouth P.O. Box 820 Portsmouth, VA 23705 (804) 393-8641

Mr. Robert P. Creecy Principal Management Analyst Management Services City of Portsmouth P.O. Box 820 Portsmouth, Va. 23705 (804) 393-8614

Ms. Carol E. Pratt Public Information Officer City of Portsmouth P.O. Box 820 Portsmouth, Va. 23705 (804) 393-8432

Ms. Venita Newby Owens, M.D. Public Health Director, Portsmouth 800 Crawford Pkwy. Portsmouth, VA 23704 (804) 393-8585

The Honorable E.G. Corprew, Jr. City Council, City of Portsmouth P.O. 80x 144
Portsmouth, Va. 23705
(804) 397-2407 (home)
(804) 624-1567 (work)

The Honorable L. Louise Lucas 1120 Lakeview Drive Portsmouth, Va. 23701 (804) 487-3870 (home) (804) 624-1567 (work)

The Honorable James C. Hawks 4104 Faber Road Portsmouth, Va. 23703 (804) 399-7541 (work) TROSECT NOR.

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(804) 483-2278 (home)

The Honorable Johnny M. Clemons 5805 Dunkirk Street Portsmouth, Va. 23703 (804) 441-6201 (office) (804) 483-3291 (home)

The Honorable Lee King 1504 Belafonte Drive Portsmouth, Va. 23701 (804) 487-5613 (home)

The Honorable John A. Epperson 107 Maryland Avenue Portsmouth, Va. 23707 (804) 499-4562 (office) (804) 397-4111 (home)

F. Local School Officials

Mr. Sidney Duck Director of Operational Services Portsmouth Public Schools 3920 Burtons Point Rd. Portsmouth, VA 23704 (804) 393-8332

John H. Ryder Acting Superintendent Porstmouth Public Schools P.O. Box 998 Portsmouth, VA 23705 (804) 399-8742

Chartes H. Bowines III, Principal Brighton Elementary School 1101 Jefferson St. Portsmouth, VA 23704 (804) 393-8870

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G. Local Libraries

Portsmouth Public Library Attn: Mr. Dean Burgess Librarian 601 Court Street Portsmouth, Virginia 23704 (804) 393-8501

H. Newspapers

Virginian Pilot & Ledger Star Ms. Colleen Hand 307 County Street Portsmouth, Va. 23704 (804) 446-2625 FAX: (804) 446-2607

Greg Goldfarb, Hanaging Editor The Portsmouth Times P.O. Box 1453 Portsmouth, VA 23705 (804) 397-7606 **Weekly (Thursday) C. 8,000

Portsmouth/Review 601 Effingham St., Suite 115 Portsmouth, Va. 23704 (804) 485-2029 **Month(y (1st of month)

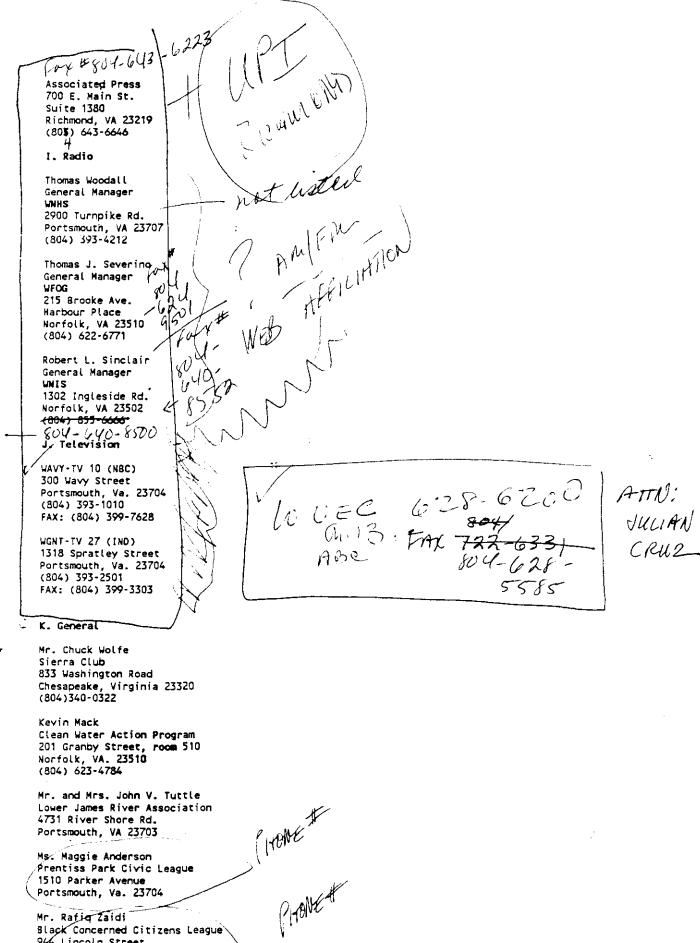
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BANA ALEMANOS

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Prentiss Park Civic League 1510 Parker Avenue Portsmouth, Va. 23704 Mr. Rafiq Zaidi

Black Concerned Citizens League 944 Lincoln Street

Portsmouth, Va. 23704

Effingham Conservation Area Attn: Mr. Charles Riddick 720 Henry Street Portsmouth, Va. 23704 (804) 399-7290

Washington Park Tenant Council Attn: Cecelia High 1415 Green Street Portsmouth, Va. 23704 Phone # Unlisted

Appendix C

Glossary of Superfund Terms

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Superfund Glossary

This glossary defines terms often used by the Department of Waste Management and the U.S. Environmental Protection Agency (EPA) staff when describing activities that take place under the Superfund law, CERCLA. The definitions apply specifically to the Superfund Program and may have other meanings when used for other types of programs. Italicized words included in various definitions are defined separately in the glossary. If you still have questions about Superfund Program terms, you can contact your Superfund Program Community Relations Liaison at the Department of Waste Management or the EPA.

Administrative Record File: A file containing all documents upon which the site cleanup decision is based; the file is usually located at a local library, town hall, or administrative office.

Administrative Order on Consent: A legal and enforceable agreement signed Potentially between EPA and Responsible Parties (PRPs) whereby PRPs agree to perform or pay the cost of a site cleanup. The agreement describes actions to be taken at a site and may be subject to a public comment period. Unlike a consent decree, an administrative order on consent does not have to be approved by a judge.

Air Stripping: A treatment system that removes, or "strips", volatile organic compounds from contaminated groundwater or surface water by forcing an airstream through the water and causing the compounds to evaporate.

Aquifer: An underground rock formation made of materials like sand, soil, or gravel that can store and supply groundwater to wells and springs. Most aquifers used in the U.S. are within a thousand feet from the earth's surface.

Carcinogen: A substance that causes cancer.

Carbon Adsorption: A treatment system where contaminants are removed from groundwater or surface water when the water is forced through tanks containing activated carbon, a specially treated material that attracts the contaminants.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. "Cleanup" is often used broadly for various response actions or phases of the remedial responses.

Comment Period: A time period during which the public can review and comment on various documents and

proposed cleanup plans. A comment period is provided when EPA proposes to add sites to the National Priorities List (NPL).

Also, a minimum 30-day comment period is held for community members to review and comment on a draft feasibility study.

Community Relations (CR): The State and EPA's program to inform and involve the public in the Superfund process and respond to community concerns.

CERCLA: (Comprehensive Environmental Response, Compensation and Liability Act) A Federal law passed in 1980 and modified in 1986 by SARA. The acts created a special tax that goes into a trust fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work.
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Consent Decree: A legal document, approved and issued by a judge, that formalizes an agreement reached between EPA/State and potentially responsible parties (PRPs) where PRPs will perform all or part of a Superfund site cleanup. The consent decree describes actions that PRPs are required to perform and is subject to a public comment period.

Contract Lab Program: Laboratories under contract to EPA which analyze soil, water, and waste samples taken from Superfund Sites.

Cost-Effective Alternative: The cleanup alternative selected for a site on the National Priorities List (NPL) based on technical feasibility, performance, reliability, and cost. The selected alternative does not require EPA to choose the least expensive alternative, but requires that if several alternatives are available that deal effectively with the problems at the site, EPA or the State must choose the remedy on the basis of permanence, reliability and cost.

Cost Recovery: A legal process where PRPs can be required to pay back the Federal government for money it spends on the *cleanup* program.

Enforcement: EPA's efforts, through legal action if necessary, to force PRPs to perform or pay for a superfund cleanup.

Enforcement Decision Document: A public document that explains the State's and EPA's selection of a cleanup alternative at a Superfund site through an enforcement action. Similar to a Record of Decision (ROD).

Environmental Response Team (ERT): EPA hazardous waste experts who provide 24-hour technical assistance to EPA regional offices and States during all types of emergencies involving releases at hazardous waste sites or toxic spills.

Feasibility Study (FS): A study done after the remedial investigation that reviews options for cleaning up the site.

Groundwater: Water found beneath the earth's surface that pores between materials like sand, soil, or gravel. In aquifers, groundwater occurs in sufficient quantities that it can be used for drinking water, irrigation and other purposes.

Hazard Ranking System (HRS): A scoring system that is used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. EPA and States use the HRS to calculate a site score, from 0 to 100, based on the actual or potential release of hazardous substances from a site through air, surface water, or groundwater to affect people or the HRS environment. The score determines whether a site will be added to the National Priorities List (NPL).

Hazardous Substance: Any material that poses a threat to public health and/or the environment. Typical hazardous substances are materials that are toxic. ignitable. explosive. corrosive. chemically reactive.

Hydrology: The science dealing with properties, movement, and effects of water on the earth's surface, in the soil and rocks below. and in the atmosphere.

Incineration: Burning of certain types of solid, liquid, or gaseous materials under controlled conditions destroy to hazardous waste.

Information Repository: A file containing scurrent information, technical reports, and reference documents regarding a information Superfund site. The repository is usually located in a public building that is convenient for local residents - like a library, city hall, or public school.

A contaminated liquid Leachate: resulting when water trickles through waste materials and collects components of those wastes. Leaching may occur at landfills and may result in hazardous substances entering soil, surface water, or groundwater.

Monitoring Wells: Special wells drilled on or near a hazardous waste site where groundwater can be sampled to determine the direction in which groundwater flows, and the types and amounts of contaminants present.

Oil Hazardous National and Contingency Substances Plan (NCP): The Federal regulation that quides the Superfund program,

National Priorities List (NPL): EPA's

of the most serious uncontrolled or apandoned hazardous waste sites that qualify for cleanup using Federal funds.

National Response Center: The center operated by the U.S. Coast Guard that receives and evaluates reports of oil and hazardous substance releases into the notifies the environment and appropriate agencies. The NRC can be contacted 24-hours a day, toll-free at (800) 424-8802.

National Response Team: Representatives of 12 Federal agencies that coordinate Federal responses to nationally significant pollution incidents and provide assistance to the responding agencies.

On-Scene Coordinator (OSC): The Federal official who coordinates and directs Superfund removal actions.

Operable Unit: An action taken as one part of an overall site cleanup.

Operations and Maintenance (O&M): Activities conducted at a site after a response action occurs, to ensure that the cleanup or con-tainment system is functioning pro-perly.

Parts Per Billion (ppb)/Parts Per Million (ppm): Units commonly used to express low concentrations of contaminants. For example, 1 ounce of a chemical in 1 million ounces of water is 1 ppm; 1 ounce

of the chemical in 1 billion ounces of water is 1 ppb, If one drochemical is mixed in a comp size swimming pool, the water will contain about 1 ppb of the chemical.

Potentially Responsible **Parties** (PRPs): Any individual or company (such as owners. operators. transporters, or generators) potentially responsible for, or contributing to, the contamination problems at a site. Whenever possible, EPA and the State require PRPs to clean up hazardous waste sites they have contaminated.

Preliminary Assessment (PA): The process of collecting and reviewing available information about a known or suspected hazardous waste site. EPA and States use this information to determine if the site requires further study. If so, a site inspection (SI) is performed.

Quality Assurance/Quality Cartol (QA/

QC): A system of proce___s, checks, audits. and corrective actions used to ensure that field work and laboratory analysis during the investigation and cleanup of Buperfund sites meet established standards.

Record of Decision (ROD): A public document that explains which cleanup alternative (s) will be used for a National Priorities List (NPL) site. The ROD is based or information generated during the Remedial Investigation/Feasibility Study and the Community Relations Pro-gram for the site.

Regional Response Team Representa-tives of Federal, State and local agencies who may assis in coordination of activities at the request of the On-Scene Coordinato or Remedial Project Manager before and during response actions.

Remedial Action (RA): The actual construction or implementation phase that follows the *remedial design* of the selected cleanup alternative at a site.

Remedial Design (RD): An engineering phase that follows the Record of Decision when technical drawings and specifications are developed for the subsequent remedial action at a site.

Remedial Invastigation/Feasibility Study (RI/FS): Two distinct but related studies. They are usually performed at the same time, and referred to as the RI/FS. The RI/FS is intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site.
- Establish criteria for cleaning up the site:
- Identify and screen cleanup alternatives for remedial action; and
- Analyze in detail the technology and osts of the alternatives.

Remedial Project Manager (RPM): The EPA or State official responsible for overseeing remedial response activities.

Remedial Response: A long-term action that stops or substantially reduces a release or threatened release of hazardous substances that is serious, but does not pose an immediate threat to the public or the environment.

Removal Action: An immediate action taken over the short-term to address a release or threatened release of hazardous substances.

Resource Conservation and Recovery
Act (RCRA): A Federal law that
established a regulatory system to track
hazardous substances from the time of
generation to disposal. The law
requires safe and secure procedures to
ne used in treating, transporting,
oring, and disposing of hazardous
substances. RCRA is designed to

prevent new uncontrolled hazardous waste sites.

Response Action: A CERCLA-authorized action at a Superfund site involving either a short-term removal action or a long-term remedial response that may include, but is not limited to, the following activities:

- Removing hazardous materials from a site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction.
- Containing the waste safely onsite to eliminate further problems.
- Destroying or treating the waste on-site using *incineration* or other technologies.
- Identifying and removing the source of groundwater contamination and preventing further movement of the contaminants.

Responsiveness Summary: A summary of oral and/or written public comments received by the State or EPA during a comment period on key recommendations for site cleanup, and the State/EPA response to those comments. The Responsiveness Summary highlights key community concerns and public involvement.

Risk Assessment: An evaluation performed as part of the remedial investigation to assess conditions at the site and determine the risk posed to public health or the environment.

Site Inspection (SI): A technical phase that follows a preliminary assessment designed to collect more extensive information on a hazardous waste site. The information is used to score the site with

the Hazard Ranking System (HRS) to see if a response action is needed.

Superfund: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act. Also referred to as the trust fund.

Superfund Amendments and Reauthorization Act (SARA): Modifications to CERCLA, enacted on October 17, 1986.

Surface Water: Bodies of water that are above ground, such as rivers, lakes, and streams.

Treatment, Storage, and Disposal Facilities (TSDs): Any building, structure, or installation where a hazardous substance has been treated, stored, or disposed. TSD facilities are regulated by EPA and States under the Resource Conservation and Recovery Act (RCRA).

Trust Fund: A fund set up under the Superfund Law (CERCLA) to help pay for the cleanup of hazardous waste sites and to take legal action to force those who are responsible for the sites to clean them up.

Volatile Organic Compound: an organic (carbon-containing) compound that evaporates (volatizes) readily at room temperature.

Superfund Acronyms

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

CR: Community Relations

FS: Feasibility Study

HRS: Hazard Ranking System

NCP: National Oil and Hazardous Substances Contingency Plan

NPL: National Priorities List

OSC: On-Scene Coordinator

O&M: Operations & Maintenance

ppm/ppb: Parts per Million/Parts Per

Billion

PRP: Potentially Responsible Party

PA: Preliminary Assessment

ROD: Record of Decision

RD/RA: Remedial Design/ Remedial

Action

RI: Remedial Investigation

RPM: Remedial Project Manager

SARA: Superfund Amendments and

Reauthorization Act of 1986.

Appendix D

Chemical Fact Sheets

Summary

Lead is a heavy metal that exists in one of three oxidation states, 0, +2, and +4. There is suggestive evidence that some lead salts are carcinogenic, inducing kidney tumors in mice and rats. Lead is also a reproductive hazard, and it can adversely affect the brain and central nervous system by causing encephalopathy and peripheral neuropathy. Chronic exposure to low levels of lead can cause subtle learning disabilities in children. Exposure to lead can also cause kidney damage and anemia, and it may have adverse effects on the immune system.

CAS Number: 7439-92-1

Chemical Formula: Pb

IUPAC Name: Lead

Chemical and Physical Properties

Atomic Weight: 207.19

Boiling Point: 1,740°C

Melting Point: 327.502°C

Specific Gravity: 11.35 at 20°C

Solubility in Water: Insolubla; some organic compounds are

soluble

Solubility in Organics: Soluble in HNO, and hot, concentrated

H,SO,

Transport and Fate

Some industrially produced lead compounds are readily soluble in water (USEPA 1979). However, metallic lead and the common lead minerals are insoluble in water. Natural compounds of lead are not usually mobile in normal surface or groundwater because the lead leached from ores is adsorbed by ferric hydroxide or combines with carbonate or sulfate ions to form insoluble compounds.

Lead Page 1 October 1985 Movement of lead and its inorganic and organolead compounds as particulates in the atmosphere is a major environmental transport process. Lead carried in the atmosphere can be removed by either wet or dry deposition. Although little evidence is available concerning the photolysis of lead compounds in natural waters, photolysis in the atmosphere occurs readily. These atmospheric processes are important in determining the form of lead entering aquatic and terrestrial systems.

The transport of lead in the aquatic environment is influenced by the speciation of the ion. Lead exists mainly as the divalent cation in most unpolluted waters and becomes adsorbed into particulate phases. However, in polluted waters organic complexation is most important. Volatilization of lead compounds probably is not important in most aquatic environments.

Sorption processes appear to exert a dominant effect on the distribution of lead in the environment. Adsorption to inorganic solids, organic materials, and hydrous iron and manganese oxides usually controls the mobility of lead and results in a strong partitioning of lead to the bed sediments in aquatic systems. The sorption mechanism most important in a particular system varies with geological setting, pH, Eh, availability of ligands, dissolved and particulate ion concentrations, salinity, and chemical composition. The equilibrium solubility of lead with carbonate, sulfate, and sulfide is low. Over most of the normal pH range, lead carbonate, and lead sulfate control solubility of lead in aerobic conditions, and lead sulfide and the metal control solubility in anaerobic conditions. Lead is strongly complexed to organic materials present in aquatic systems and soil. Lead in soil is not easily taken up by plants, and therefore its availability to terrestrial organisms is somewhat limited.

Bioaccumulation of lead has been demonstrated for a variety of organisms, and bioconcentration factors are within the range of 100-1,000. Microcosm studies indicate that lead is not biomagnified through the food chain. Biomethylation of lead by microorganisms can remobilize lead to the environment. The ultimate sink of lead is probably the deep oceans.

Health Effects

There is evidence that several lead salts are carcinogenic in mice or rats, causing tumors of the kidneys after either oral or parenteral administration. Data concerning the carcinogenicity of lead in humans are inconclusive. The available data are not sufficient to evaluate the carcinogenicity of organic lead compounds or metallic lead. There is equivocal evidence that exposure to lead causes genotoxicity in humans and animals. The available evidence indicates that lead presents

Lead Page 2 October 1985 a hazard to reproduction and exerts a toxic effect on conception, pregnancy, and the fetus in humans and experimental animals (USZPA 1977, 1980).

Many lead compounds are sufficiently soluble in body fluids to be toxic (USEPA 1977, 1980). Exposure of humans or experimental animals to lead can result in toxic effects in the brain and central nervous system, the peripheral nervous system, the kidneys, and the hematopoietic system. Chronic exposure to inorganic lead by ingestion or inhalation can cause lead encephalopathy, and severe cases can result in permanent brain damage. Lead poisoning may cause peripheral neuropathy in adults and children, and permanent learning disabilities that are clinically undetectable in children may be caused by exposure to relatively low levels. Short-term exposure to lead can cause reversible kidney damage, but prolonged exposure at high concentrations may result in progressive kidney damage and possibly kidney failure. Anemia, due to inhibition of hemoblobin synthesis and a reduction in the life span of circulating red blood cells, is an early manifestation of lead poisoning. Several studies with experimental animals suggest that lead may interfere with various aspects of the immune response.

Toxicity to Wildlife and Domestic Animals

Freshwater vertebrates and invertebrates are more sensitive to lead in soft water than in hard water (USEPA 1980, 1983). At a hardness of about 50 mg/liter CaCO₂, the median effect concentrations for nine families range from 140 µg/liter to 236,600 µg/liter. Chronic values for Daphnia magna and the rainbow trout are 12.26 and 83.08 µg/liter, respectively, at a hardness of about 50 mg/liter. Acute-chronic ratios calculated for three freshwater species ranged from 18 to 62. Bioconcentration factors, ranging from 42 for young brook trout to 1,700 for a snail, were reported. Freshwater algae show an inhibition of growth at concentrations above 500 µg/liter.

Acute values for twelve saltwater species range from 476 µg/liter for the common mussel to 27,000 µg/liter for the soft-shell clam. Chronic exposure to lead causes adverse effects in mysid shrimp at 37 µg/liter, but not at 17 µg/liter. The acute-chronic ratio for this species is 118. Reported bioconcentration factors range from 17.5 for the Quahog clam to 2,570 for the blue mussel. Saltwater algae are adversely affected at approximate lead concentrations as low as 15.8 µg/liter.

Although lead is known to occur in the tissue of many free-living wild animals, including birds, mammals, fishes, and invertebrates, reports of poisoning usually involve waterfowl. There is evidence that lead, at concentrations occasionally found near roadsides and smelters, can eliminate or reduce

Lead Page 3 October 1985



populations of bacteria and fungi on leaf surfaces and in soil. Many of these microorganisms play key roles in the decomposer food chain.

Cases of lead poisoning have been reported for a variety of domestic animals, including cattle, horses, dogs, and cats. Several types of anthropogenic sources are cited as the source of lead in these reports. Because of their curiosity and their indiscriminate eating habits, cattle experience the greatest incidence of lead toxicity among domestic animals.

Regulations and Standards

Ambient Water Quality Criteria (USEPA):

Aquatic Life (Proposed Criteria)

The concentrations below are for active lead, which is defined as the lead that passes through a 0.45- μ m membrane filter after the sample is acidified to pH 4 with nitric acid.

Preshwater

Acute toxicity: $e^{(1.34 [ln(hardness)] - 2.014)} \mu g/liter$ Chronic toxicity: $e^{(1.34 [ln(hardness)] - 5.245)} \mu g/liter$

Saltwater

Acute toxicity: 220 µg/liter Chronic toxicity: 8.6 µg/liter

Human Health

Criterion: 50 µg/liter

Primary Drinking Water Standard: 50 µg/liter

NIOSH Recommended Standard: 0.10 mg/m3 TWA (inorganic lead)

OSHA Standard: 50 µg/m³ TWA

ACGIH Threshold Limit, Values:

. 0.15 mg/m 3 TWA (inorganic dusts and fumes) 0.45 mg/m 3 STEL (inorganic dusts and fumes)

Lead Page 4 October 1985

Appendix E

Remedial Investigation/Feasibility Study Schedule of Activity TABLE S. BI/FS SCEEDULE
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Portsmouth, Virginia

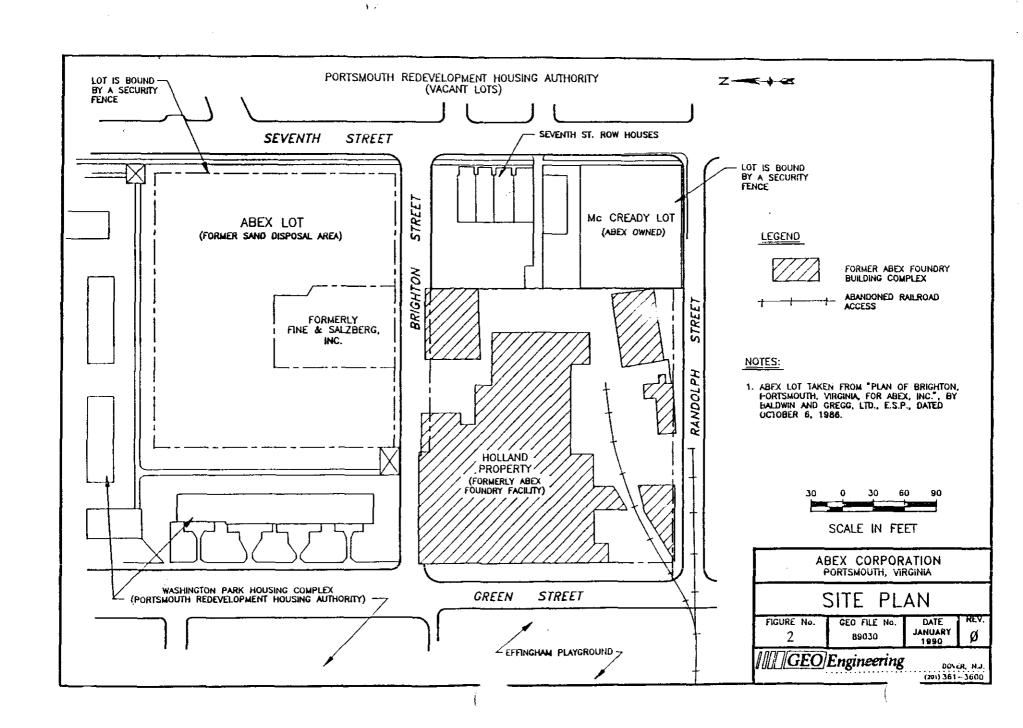
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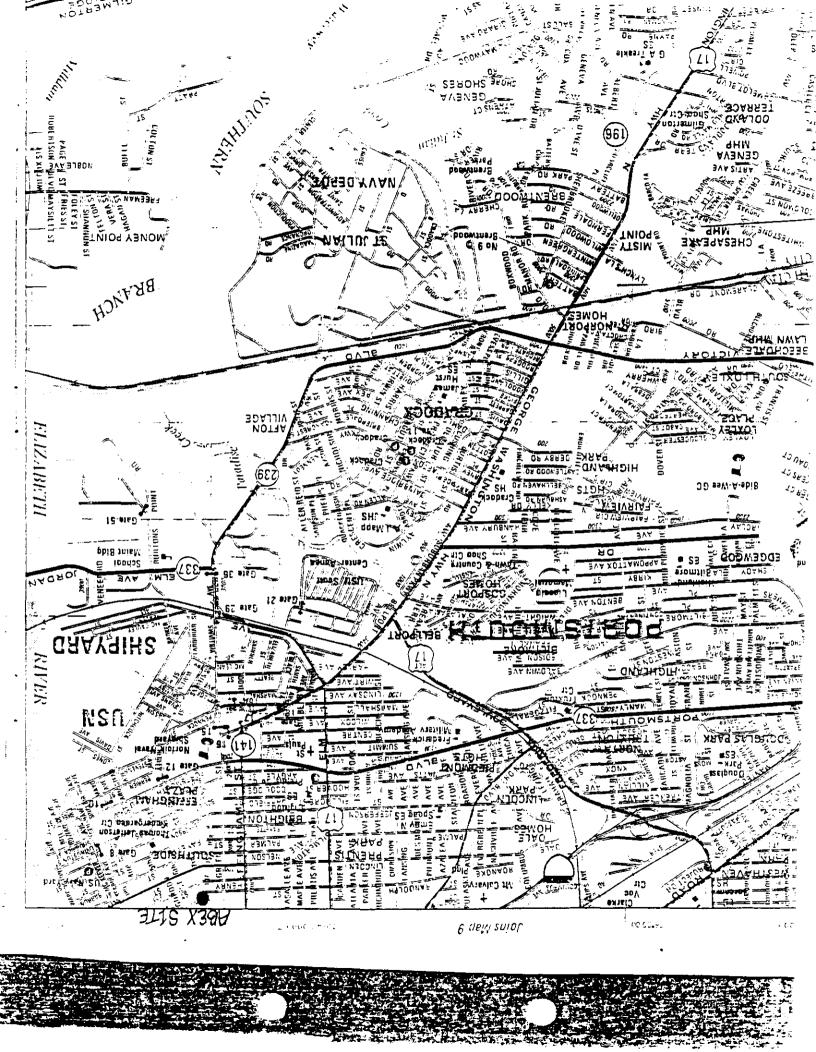
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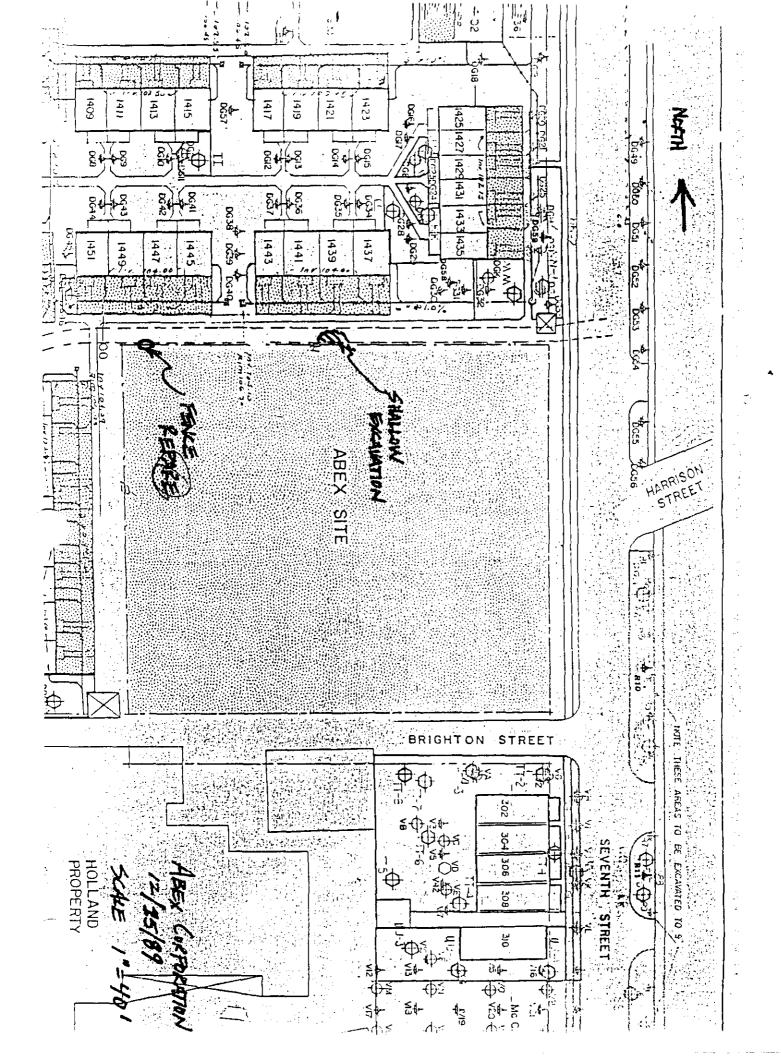
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Appendix F

Site Area Maps







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Abex Superfund Site Community Update

For the Citizens Living Near the Former Abex Foundry Site

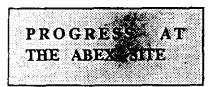
SITE HISTORY

The Abex Superfund site is located at the corners of

Randolph and Green Streets in Portsmouth, Virginia. The site was used to recycle parts of railroad cars from 1928 through 1978. In 1986, very high levels of Lead were identified near and around the site. A Removal Action was conducted from 1986 - 1989 under the authority of the United States Environmental Protection Agency (U.S. EPA).

Since then, investigations have been underway to make sure that any longterm health threat that may be caused by the former Abex Foundry site is handled as effectively and efficiently as possible.

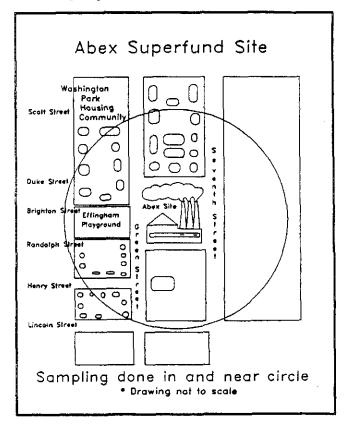
The Virginia Department of Waste Management (VDWM) is the lead agency for the Abex Superfund site, and is managing the Superfund investigations and cleanup actions. The USEPA is the support agency for the Abex site, and provides technical and community relations support, as well as regulatory guidance, for the Superfund actions at the site.



The Remedial Investigation began in October 1990. During the Remedial

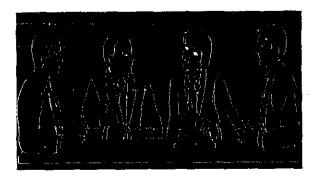
Investigation, or RI, many samples are taken of water, air, soil, dust, and sediment on and around the site. In this case, engineers, scientists, and technicians took samples about 700 feet in any direction from the actual Abex foundry site. For the specific sampling locations, please review the

following map:



Several hundred samples have been taken within this 700-foot radius from the Abex Foundry site. VDWM, EPA, and representatives of Abex Corporation, hope to have this part of the study completed by the end of 1991.

The second part of the current Superfund study is the Feasibility Study, or FS. The FS relies on the information collected during the Remedial Investigation (RI), and compares various technologies that could be used to contain or eliminate the Lead threat posed by the former Abex Foundry to human health and the environment. The FS is scheduled to wrap up by March 31, 1992. This date may change to August 31, 1992 if the VDWM and EPA think the Remedial Investigation (RI) and Feasibility Study (FS) reports need to be more specific and thorough. If this delay is necessary, we will let residents know in the next issue of this newsletter.



PUBLIC PARTICIPATION OPPORTUNITIES

When Congress amended the Superfund law in 1986, they wanted to make sure that residents and other interested citizens who were interested in monitoring activities at Superfund sites like the Abex Site were able to get the information they needed to do so. The United States Environmental Protection Agency (U.S. EPA) and the Virginia Department of Waste Management (VDWM) fully encourage citizens to ask questions and express concerns about the Superfund investigation taking place at the Abex Superfund site, Randolph and Green Streets, in Portsmouth, Virginia.

The VDWM is managing community relations activities for the Abex site. We will continue to send newsletters like this one at least every three months. We will send additional newsletters if something noteworthy occurs in our study. In addition, we will have a public meeting when the RI/FS is completed in mid-1992. At this meeting, we will review the results of the Superfund study, and explain to residents which cleanup technology we think will be the best choice for protecting public health and the environment near the Abex site in Portsmouth. Citizens will also have a formal public comment period during which comments and

concerns may be registered with the VDWM. We will notify residents of the dates of this meeting and comment period in our newsletter, as well as an advertisement in the newspaper. Please let us know if we should post the meeting notice in other places that might be more convenient for you or your neighbors.

Residents may also request more activities if needed. We would be happy to meet with you and your neighbors to answer questions about the Abex study and the Superfund process at any time during our activities in your community. We recently attended a meeting of the Madison Ward Civic League, and would be happy to do so at any time. Residents may call or write questions and comments to the community relations contact listed in the box on page three. We will respond to all of your questions as promptly as possible.

A file of information on the Abex Superfund site has been set up in the Reference Section at the Portsmouth Library, Main Branch, at 601 Court Street in downtown Portsmouth. The library is temporarily closed for repair work, so residents interested in seeing information on the site during this period may call or write the community relations contact listed at the end of this newsletter.

VDWM ANSWERS YOUR QUESTIONS During our meetings with various residents that live near the Abex Superfund site, several questions have been raised. We would like to share these questions, and our responses, with you in

case you might also be wondering about these issues.

WHAT IS LEAD? Lead is a metal that can be found in old paints, bathroom or kitchen pipes, some colored inks used in newspapers or magazines, and Leaded gasoline, to name a few sources. Lead can be found in many places, but especially cities, since cars, trucks, factories, and shipyards may all generate Lead in their exhaust or other operations.

IS LEAD DANGEROUS? Too much Lead can be dangerous. Lead is most dangerous for small children under the age of six, pregnant women, and nursing mothers, because Lead affects neurological development.

SHOULD WE HAVE OUR CHILDREN TESTED FOR LEAD? Doctors recommend having children tested every six months if you think they are being exposed to Lead from dirt, dust, or household renovations. Contact your local Health Department at 393-8585 for more information.

HAVE OUR YARDS BEEN SAMPLED FOR LEAD? As a part of the Abex Superfund RI/FS, samples have been taken within a 700-foot radius from the old Abex Foundry. This area includes the Effingham playground, Washington Park Housing community, and other nearby lots. Some yards were sampled. Since the Superfund study will only focus on Lead contamination related to the operations of the former Abex Foundry, areas outside of the 700-foot radius may not be sampled. Please see the map on page one for an idea on sampling locations.

ARE LEAD LEVELS FROM THE SUPERFUND SAMPLES HIGH? Some of the samples that have been collected during our study show that certain areas have very high Lead levels, and other areas have levels of little or no concern. When our sampling is completed, we will meet with residents to review the study results, explain where high Lead levels have been found, and review cleanup options to protect public health and the environment.

WHY DID PEOPLE COME DOOR-TO-DOOR ASKING ABOUT FRUIT TREES? COULD LEAD CONTAMINATIONAFFECT FRUIT TREES? The VDWM did not conduct any door-to-door survey in the neighborhood asking residents about fruit trees. However, the U.S. EPA may have been in your neighborhood collecting information for a separate part of the Superfund study. We apologize if the questions about fruit trees caused unnecessary concern.

According to our toxicologist at VDWM, Lead does not tend to accumulate in plants at levels high enough to be a public health concern. This is particularly true near the Abex Superfund site. Our toxicologist does not see any Lead-related health problems posed by eating fruit off of fruit trees in the Abex site area.

HOW CAN WE FIND OUT MORE ABOUT THE ABEXSUPERFUND SITE ACTIVITIES? Make sure you are on the VDWM mailing list so you can receive copies of newsletters like this one every three months or more. Individuals on the VDWM mailing list will also receive copies of meeting and

comment period notices. Interested residents may also call the community relations contact listed at the end of this newsletter to ask any questions, express concerns, or request a workshop in your community.

HOW CAN WE FIND OUT MORE ABOUT LEAD? There are many good sources of information about Lead available to interested residents.

- ♦ Lead Free Kids, Inc., 110 E. 31st Street, Box 8595, Minneapolis, MN., 55408-0595; (612) 641-1959.
- ♦ Portsmouth Department of Health, 393-8585.

WHAT ARE SOME LEAD PREVENTION TIPS? Experts recommend some very simple things for cutting down your childrens' exposure to Lead.

- Encourage children to scrub their hands frequently. This way, any Leadcontaminated dust from playing will be washed off and will not find its way into their mouths!
- With a wet sponge, wipe counters, window wells, and other surfaces in your house that might get dusty from open windows.
- ♦ Cover chipping paint in older homes with paneling, aluminum foil, duct tape, or shelf paper to prevent children from playing with it.
- Do not store canned food or juice in the cans, which may contain Lead. Place food and juice in glass or plastic storage containers.

Your local Health Department experts may be able to give you additional tips on minimizing your exposure to Lead.

YOUR SUPERFUND CONTACT

Ms. Jamie Walters
Virginia Department of
Waste Management
Division of Public Affairs
101 N. 14th Street, 18th Fl.
Richmond, Virginia 23219
(804) 225-2903

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Abex Superfund Site Portsmouth, Virginia June 1992

Type of Pacility:

Former Brass and Bronze Foundry

Contaminants:

Lead (primary)

Funding:

Potentially Responsible Party (PRP), Pneumo Abex, Inc. paid for the 1986 Removal Action, Remedial Investigation/Feasibility Study phase, and the upcoming Summer 1992, Removal Action.

Lead Agency:

VDWM--Remedial Activities (long term threat)
U.S. EPA Removal Action (short term threat)

Site Summary:

The Abex Superfund site is located in a residential area in the City of Portsmouth. The foundry made journal bearings for railroad cars from 1928 to 1978. Spent casting sand laden with heavy metals (lead) was disposed of in a one acre area north of the foundry facility. The foundry furnace operation also produced stack emissions of fine particulate material associated with facility processes.

In 1986, EPA identified high lead concentrations in the foundry waste, in soil around the process area, and in off-site soil in residential lots adjacent to the site. In August 1986, EPA entered into a consent order requiring Abex to excavate and remove contaminated soil at varying depths (6-18 mchcs) from specified areas, paving of certain areas, erection of security fences and miscellaneous site improvements. Restoration by seeding and sodding was also required at unpaved areas from which soil was excavated.

On October 10, 1989, the Virginia Department of Waste Management, serving as the lead agency, entered into an Administrative Order on Consent, requiring Abex to conduct a Remedial Investigation/ Feasibility Study (RI/FS). The report was completed in February 1992.

Based on the results of the study, VDWM drafted and then presented the Proposital Remedial Action Plan on May 7, 1992, to Portsmouth citizens, officials, and the media. The Plan evaluates seven remedies to clean up the Site. The VDWM and EPA selected a preferred alternative that calls for: surface and limited subsurface soil excavation of soils exceeding 500 parts per million (ppm) lead at 0 to 24 inches, on-site treatment and off site disposal of lead contaminated soils. In addition, all Site-related soils exceeding 5000ppm and constituting a principal threat would be excavated. The former foundry facility would be decontaminated and a CERCLA five-year review would be required under this alternative. Currently, comments from Portsmouth citizens, officials, the PRP, and other interested parties are being accepted by the VDWM. The Public Comment Period began on April 29, 1992, and will end on July 10, 1992. Per citizen request, the comment period was extended for an additional 30 days. GUINE > 10 JULY REPORTED

A non-emergency short term removal action has been planned by EPA for the site. Activity will start within the next few weeks. Non-emergency removal actions are conducted at sites where there is not an immediate threat to public health, but where the situation calls for a faster cleanup than the normal remedial process. A removal action is separate from the other stages in the Superfund program, but will overlap with plans at this particular site. The removal action, which is led by EPA, will be primarily concentrated in the residential areas.

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Community Relations:

Area citizens, civic leaders, and local officials are quite concerned about the past and present health effects of lead. Several meetings have been held with these individuals to listen to their concerns and suggestions, so we can provide information in a manner in which they are comfortable. Supplemental Lead education and prevention materials have been researched and prepared.

Interest levels have increased as expected, due to the upcoming removal action. In response to activity levels, several informal workshops and small group meetings have been held with local residents and officials. VDWM community relations staff stay in contact with Portsmouth City officials on a regular basis.

Community Update

For Citizens Living Near the Former Abex Foundry Site

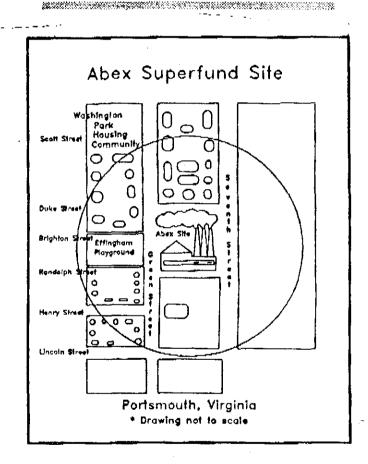
Portsmouth, Virginia

What Is Superfund?

The Superfund Program was created by the United States Congress in 1980 to locate and clean up the worst hazardous waste sites in the country. The primary goal of the Superfund Program is to protect public health and the environment. The law creating Superfund was modified in 1986, allowing both the State and the community citizens a stronger opportunity to participate in the Superfund investigations and cleanups that were occurring within our borders. Currently, there are approximately 1235 Superfund sites across the nation, 22 of which are in Virginia.

Abex Site History

The Abex Superfund Site is located at the corners of Randolph and Green Streets in Portsmouth, Virginia. The site was used to recycle parts of railroad cars from 1928 through 1978. In 1986, very high levels of Lead were identified near and around the site. A Removal Action was conducted from 1986-1989 under the authority of the United States Environmental Protection Agency (U.S. EPA). During this time, most exposed sources of contamination were securely fenced and excavated or covered to eliminate direct exposure to Lead, so it would no longer pose an immediate health threat.



Short-Term Removal Action

A non-emergency short term removal action has been planned for the site. Non-emergency removal actions are conducted at sites where there is not an immediate threat to public health, but where the situation calls for a faster

cleanup than the normal remedial process. A removal action is separate from the other stages in the Superfund program, but will overlap with plans at this particular site. The removal action, which is led by EPA, will be primarily concentrated in the residential areas.

Your contact person for the removal action is Ms. Leanne Nurse, EPA Community Relations Coordinator. Please feel free to contact Ms. Nurse at (215) 597-6920 with any questions or concerns you may have regarding the removal action.

Longer-Term Cleanup

The remedial activities, led by the State, will address the long-term remedy. This entails more in-depth investigation in the residential areas and also in the industrial areas. Investigations were completed in February, 1992. Seven possible cleanup alternatives have been identified and reviewed, and are discussed in a document called the *Proposed Plan*. The recommended alternative, number 7, proposes to excavate and treat the lead contaminated soil on-site, and dispose of it in an off-site landfill.

Public Comment Period Extended

The Public Comment Period for the Proposed Remedial Action Plan has been extended until July 10, 1992. You are encouraged to review a copy of the Proposed Plan, located in the Information Repository file in the Reference Section of the Portsmouth Main Library and forward your written comments to your VDWM Superfund contact no later than July 10, 1992. Your Superfund contact is listed on the last page of this fact sheet. After comments are reviewed, the final cleanup decision, known as the Record of Decision (ROD), will be established. Based on the ROD, the specifications for the engineering design, known as Remedial Design, will be developed for the actual cleanup of the site.

Public Participation

When Congress amended the Superfund law in 1986, they wanted to make sure that residents and other interested citizens who were interested in monitoring activities at Superfund sites like the Abex Site were able to get the information they needed to do so. EPA and VDWM fully encourage citizens to ask questions and express concerns about the Superfund activities taking place at the Abex Superfund site.

We will continue to send newsletters like this one every three months or more. Individuals on the VDWM mailing list also receive copies of meeting and comment period notices. Interested residents may also call the community relations contact listed at the end of this newsletter to ask any questions, express concerns, or request a workshop in your community.

Your Questions and Concerns

During our meetings with residents who live near the Abex Superfund Site, several questions have been raised. We would like to share these questions and our responses with you.

- ♦ What about the legal issues and liabilities related to our property? You may consult with your private attorney, or be put in touch with an EPA attorney in order to have your questions answered regarding these issues.
- ♦ What is a Technical Assistance Grants (TAG)? The purpose of the TAG program is to encourage informed community involvement during Superfund investigations. To achieve this goal, grants of up to \$50,000 are available by the EPA to community groups affected by a Superfund site. The grants may be used to hire a technical advisor to interpret information, or to represent you during Superfund actions. More information on the requirements and application process is available from the VDWM and EPA.

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Abex Superfund Site Proposed Plan

As Presented At: Council Chambers Portsmouth, Virginia

City Hall May 7, 1992

INTRODUCTION

In accordance with the terms of an Administrative Order on Consent between the Virginia Department of Waste Management (VDWM) and the Abex Corporation (now known as the Pneumo Abex Corporation), the Abex Corporation has completed a Remedial Investigation/Feasibility Study (RI/FS) of the Abex Corporation Superfund Site ("Site"), located in Portsmouth, Virginia. The Remedial Investigation (RI) characterizes the nature and extent of contamination associated with the Site, while the Feasibility Study (FS) evaluates remedial alternatives for contamination of concern.

Based on the results of the RI/FS, VDWM and the U.S. Environmental Protection Agency (EPA) have identified a preferred alternative for remediating contaminated soils and structures which are known to be associated with the Site and constitute an unacceptable long-term human health risk (see Scope and Role of Remedial Action below). This part of the Site has been designated as Operable Unit One (OU-1). Under the preferred alternative for OU-1 (identified on page 10 as Alternative 7), contaminated soils would be excavated, treated onsite by a stabilization/solidification process, and

Abex Superfund Site

Washington Park
Housing Community

Duke Street Community

Prighton Street Effingham Playground Randolph Street

Henry Street

Sampling done in and near circle

Drawing not to scale

disposed in an offsite landfill, while structures comprising the facility would be decontaminated. This Proposed Plan summarizes the findings of the RI/FS and explains the basis of the preferred alternative for OU-1.

VDWM, the lead agency, and EPA, the support agency for the RI/FS project at the Site, are issuing this Proposed Plan to fulfill the requirements under Sections 113(k), 117(a) and 121(f) of the

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. A subsequent plan shall address Operable Unit Two (OU-2), which will focus on additional areas which may be contaminated by the Site.

PUBLIC PARTICIPATION INVITED

VDWM and EPA encourage the public and interested parties to review and comment on the preferred alternative, other alternatives considered in the Proposed Plan, and other documents comprising the Administrative Record for the Site. VDWM and EPA may modify the proposed alternative or select another alternative presented in this Proposed Plan based on new information or public comments. The selected remedy will be documented in a Record of Decision.

The public comment period begins on April 29, 1992 and concludes on May 28, 1992. The Administrative Record is available for public review in the information repository, which is located at the Portsmouth Public Library - Main Branch Reference Section, 601 Court Street, Portsmouth, Virginia, (804) 393-8501. Written comments must be postmarked no later than May 28, 1992, and submitted to one of the following VDWM representatives:

Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-2903

or

Stephen Mihalko
Remedial Project Manager
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-3263

VDWM and EPA will hold a public meeting on Thursday, May 7, 1992 at 7:30 p.m. at the Portsmouth City Council Chambers, City Hall Sixth Floor, Portsmouth, Virginia, to present a summary of the RI/FS reports and the proposed alternative, and to provide an opportunity for interested citizens to raise questions or comments.

ABEX SITE BACKGROUND

The Site is located in a residential area of the City of Portsmouth in Virginia. The Site includes a former foundry that made bearings for railroad cars from 1928 to 1978. The facility is currently located on land owned by John Holland (hereafter referred to as the Holland Lot). The foundry disposed of waste sand laden with heavy metals, including lead, in a one acre area (hereafter referred to as the Abex Lot) immediately north of the former foundry facility. The foundry also released air emissions of fine particulates from a stack during its years of operation. Figures 1 and 2 provide maps of Site-related features discussed in this Plan.

In 1986, the EPA identified high lead concentrations in the foundry waste within the Abex Lot and in soil of neighboring residential lots. Pursuant to a Consent Order signed with EPA in 1986, Abex excavated and removed contaminated soil at varying depths (6 to 12 inches) from certain residential areas around the Abex Lot, and paved/fenced the Abex Lot and the McCready Lot. All excavated areas were filled with clean soil and revegetated. These measures were taken to reduce the more immediate known health threats while awaiting the Remedial Investigation and Feasibility Study, which focused on the long-term health and environmental threats posed by the site.

On October 10, 1989, VDWM, serving as the lead agency, entered into an Administrative Order on Consent with Abex, requiring Abex to conduct an Remedial Investigation/Feasibility Study (RI/FS) to fully assess any additional contamination attributed to the former foundry operations and to identify cleanup options as appropriate.

FINDINGS OF THE REMEDIAL INVESTIGATION (RI)

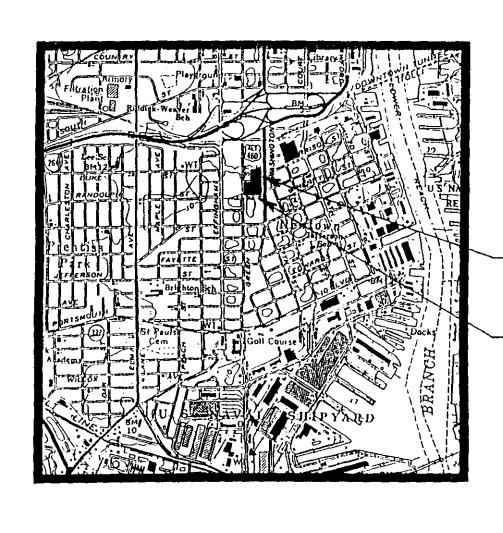
The Remedial Investigation found elevated levels of lead, copper, antimony, tin and zinc associated with the Site in the following areas: the former foundry (now part of the Holland Property), under the asphalt-capped Abex and McCready Lots, and soils of residential and non-residential areas. The primary contaminant of concern is lead (see Risk Assessment).

Soil ("floor dirt") and dust throughout the interior of the foundry building contain lead levels of up to 100,000 ppm. Outdoor soils on the Holland Property contain lead levels of up to 58,000 ppm within the top two feet. Site-related waste sand is buried in the Abex Lot to a depth of at least four, with lead concentrations ranging up to 24,000 ppm. Lead levels of up to 4,750 ppm occur within the top two feet of soil under asphalt within the McCready Lot.

Surrounding areas containing lead-contaminated soil associated with the Site include the Drug Rehabilitation Center property, the Washington Park public housing area, Effingham Playground, private residential properties in an area hereafter referred to as the Effingham Residences, private residential properties on Seventh Street and Vacant Lots on the east side of Seventh Street. (See attached maps for the locations of these areas.)

While the removal action conducted between 1986 and 1989 (see Scope and Role of Remedial Action) removed the majority of lead-contaminated surface soils from Washington Park, isolated surface soils within this area still exceed 500 ppm lead. In addition, areas within Washington Park contain lead levels of up to 46,500 ppm in soils between 1 and 4 feet in depth.

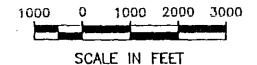
Surface soils within the Effingham Residences have lead concentrations of up to 7,890 ppm, while soils at depths of 1 to 4 feet have lead levels of up to 8,000 ppm in certain areas. In addition to containing some



FOUNDRY SAND DISPOSAL AREA

FORMER LOCATION OF ABEX FOUNDRY

SOURCE: USGS 7.5 MINUTE QUADRANGLE FOR NORFOLK SOUTH, VIRGINIA, DATED 1965, AND PHOTOREVISED 1986.



ABEX CORPORATION PORTSMOUTH, VIRGINIA

SITE LOCATION MAP

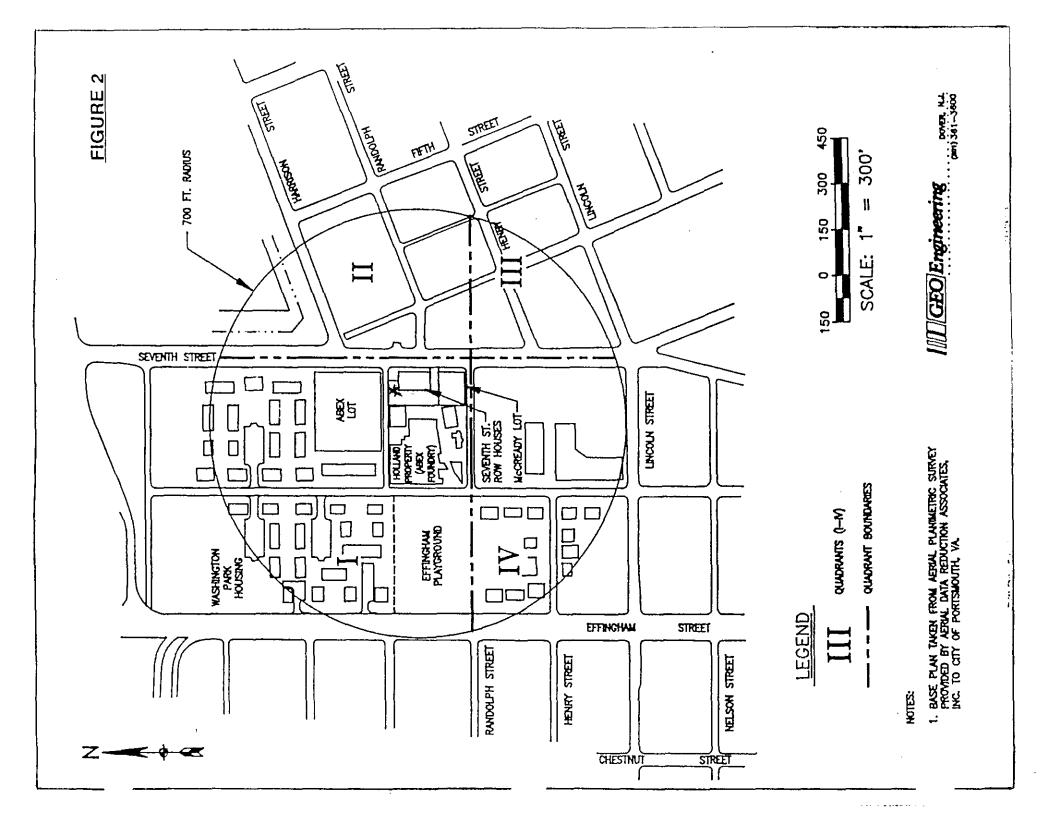
FIGURE No.

OED FILE No. 89030

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IIII GEO Engineering DOVER, N.J.

(201) 361 - 3600



surface soils with lead exceeding 500 ppm lead, soils at one to four feet within the Effingham Playground contain lead levels of up to 5,000 ppm.

Soils within lots associated with the Seventh Street Row Homes contain lead at levels up to 7,000 ppm at 0 to 2 feet in depth. In addition, attics of two Seventh Street homes contain dust with lead levels of up to 7,030 ppm.

Site-related lead has been detected in surface soils of the vacant lots west of Seventh Street at levels up to 1,200 ppm, while subsurface soils in this area contain lead of up to 6,000 ppm. Surface soils within the Drug Rehabilitation Center property contain lead at levels up to 9,300 ppm.

Sampling and analysis of groundwater within the surface aquifer immediately downgradient of the Abex Lot has detected lead levels of 30 ppb. However, residents are supplied water via the public drinking water system, and do not rely upon the groundwater aquifers underlying the site for potable purposes.

RISK ASSESSMENT

A Risk Assessment performed as part of Remedial Investigation has determined that lead is the primary contaminant of concern at the Site. Residents or workers may be exposed to the lead found in contaminated soils and dust by ingestion or inhalation.

Currently, the Environmental Protection Agency assesses risk from exposure to lead contaminated soils and dust through a Lead Uptake Biokinetic Model. The model simulates uptake, distribution, and elimination of lead from the body. The model assumes potential sources of lead exposure are water, dust, soil, and food. Since groundwater and surface water are not used for drinking water purposes in this case, potential exposure sources of lead to residents and/or workers in this case are inhalation of dust, incidental ingestion of soil (particularly by children), and consumption of food.

The results of the model for this site conclude that children are exposed to an unacceptable health risk when lead concentrations in surface soil or dust exceed 500 ppm. The primary exposure pathways of concern in this case are incidental ingestion of soil and inhalation of dust. The Risk Assessment has concluded that there is no significant health risk from consuming fruits or vegetables grown in soil in residential (or potential residential) areas on and around the Site, provided that such vegetables are washed to remove any soil or dust which may accumulate on the surface.

The surface aquifer underlying the Site is not currently used, but may be hydraulically connected to underlying aquifers which may become a source of drinking water. Monitoring of the surface aquifer immediately downgradient of the Abex Lot indicates groundwater at this location exceeds the Cleanup Level for lead in groundwater of 15 ppb (see EPA Memorandum dated June 21, 1991 in Administrative Record).

SCOPE AND ROLE OF REMEDIAL ACTION

The EPA has determined that soils within current residential areas which exceed 500 ppm within the top foot present a short-term threat to human health. As a result, the EPA issued a Unilateral Administrative Order to the Abex Corporation requiring it to remove such soil from the Site. The EPA shall perform the work described under the Unilateral Administrative Order should Abex decline to do so.

Remedial alternatives for addressing remaining, long-term, unacceptable, Site-related health risks are identified in this Proposed Plan. Based on the findings of the Remedial Investigation and the Risk Assessment,

the primary objectives of the Remedial Action addressing long-term threats are as follows:

- Eliminate incidental ingestion of soil which exceeds 500 ppm of lead
- Eliminate inhalation of dust which exceeds 500 ppm lead
- Prevent releases of lead which result in greater than 15 ppb lead in potential drinking water supplies

In addition, as provided by the National Contingency Plan, Section 300.430(a)(1)(iii), all soil associated with the Site which constitutes a principal threat shall be treated wherever practical. In this case, the EPA considers any soil with lead at concentrations over one order of magnitude higher than 500 ppm to be a principal threat. (See National Contingency Plan Preamble at 55 FR 8813, March 8, 1990, p.8702-8703). As a result, all soil or waste with lead concentrations over 5000 ppm should be treated wherever feasible.

SUMMARY OF ALTERNATIVES \$4 \rightarrow 38 MM(

The Feasibility Study for the Abex site screened various engineering technologies available to remediate the site. The technologies were screened according to their effectiveness and implementability, and the technologies determined to be most applicable were then developed into remedial alternatives. The following remedial alternatives have been identified based on the Feasibility Study report. In all cases, the alternatives are for work to be performed in addition to work already planned under the Removal Action.

Alternative 1: No Action

Alternative 2: Surface Soil Excavation, Offsite Treatment/Disposal, Capping, Institutional

Controls

Alternative 3: Surface and Subsurface Soil Excavation, Offsite Treatment/Disposal

Alternative 4: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

Alternative 5: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal,

Capping, Institutional Controls

Alternative 6: Surface and Subsurface Soil Excavation, Onsite/In Situ Treatment, Offsite

Disposal, Capping, Institutional Controls

Alternative 7: Surface and Limited Subsurface Soil Excavation, Onsite Treatment, Offsite

Disposal

COMMON ELEMENTS OF ALL ALTERNATIVES

Except for the No-Action Alternative, all of the remedial alternatives include certain common elements:

In each case, the former foundry facility structure, interior and equipment will be decontaminated as necessary. Equipment maintained within the facility by the current property owner may have to be decontaminated or temporarily removed prior to decontamination. Decontamination shall consist of soil and

dust removal by vacuum, pressure water wash, or similar means. Solid residuals generated by this process shall be handled in the same manner as contaminated soils. Any contaminated soil at depth within the building shall be addressed in a manner consistent with exterior soils on the Holland Property.

With each alternative, soil excavation and offsite soil disposal is necessary. Testing shall be conducted to determine whether an excavated soil is a characteristic hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Soil which is determined to be a RCRA hazardous waste shall be treated prior to land disposal. Soil which is not a RCRA hazardous waste may still require treatment prior to disposal in a Solid Waste Management Facility within Virginia or another state.

In each case, conventional earth moving equipment would be used to excavate and load the contaminated soil. All excavated areas would be backfilled with clean soil and revegetated.

Discharge of decontamination water and any other water generated during remedial activities will meet Virginia Pollution Discharge Elimination System (VPDES) requirements developed pursuant to the Federal Clean Water Act and Virginia State Water Control Law.

Any air emissions generated during remedial activities shall meet National Emission Standards for Hazardous Air Pollutants (NESHAPs) developed under the Federal Clean Air Act and the Virginia Regulations for the Control and Abatement of Air Pollution (VRCAAP). Air shall be monitored to protect the health of onsite workers and the community. Sampling of the interior of homes in the vicinity of excavation shall be performed to assure there is no significant release of dust into homes during remedial activity.

In each case where treatment is included, the treatment shall be stabilization and/or solidification. In all cases, transportation, storage, treatment and disposal of soil will be in compliance with Virginia Hazardous Wastes Management Regulations (VHWMR) and RCRA. Unique aspects and the estimated cost of each alternative is summarized below. Present Worth includes an estimate of operation and maintenance (O & M) costs over a thirty year period. For each alternative, the cost estimate is for the work to be performed in addition to that performed under the Removal Action.

Alternative 1: No Action

Pursuant to the National Contingency Plan (NCP), the "no action" alternative is considered to provide a base line for comparison to other alternatives. Under this alternative, no action beyond the Removal Action shall be performed. Soils with lead levels exceeding 500 ppm within the top foot would remain at the Drug Rehabilitation Center and Vacant Lots. Soils identified as a principal threat (lead greater than 5000 ppm) would remain in the Abex Lot, Holland Property, Washington Park and Effingham Residence area. In addition, soils with lead greater than 500 ppm would remain at 12 to 24" within areas where gardening (or similar intrusive activities) and redevelopment may occur. Certain areas of lead contamination, including the Abex and McCready lots, and areas of the Holland Property, are currently capped and fenced, minimizing exposure to underlying lead at this time. However, these caps would not be permanently maintained under this alternative.

Alternative 2: Surface Soil Excavation, Offsite Treatment/ Disposal, Capping, Institutional Controls

Under this alternative, remaining Site-related soils exceeding 500 ppm lead within the top one foot

(which are not currently capped) would be excavated. Areas of excavation would include the Drug Rehabilitation Center and Vacant Lots. Existing caps on the Abex Lot, McCready Lot and the Holland Property would be permanently maintained under this alternative. To control exposure to the capped soils (which constitute a principal threat) over the long-term, institutional land-use controls (e.g. deed restrictions) would be implemented. In addition, a groundwater monitoring program would be implemented. As noted under Common Elements, this and all remaining alternatives include foundry facility decontamination. A CERCLA five-year review would be required under this alternative. This alternative is designated as Alternative II, Case 1, in the Feasibility Study.

Capital Cost:

\$ 4.865.430

O & M Cost:

\$ At least \$23,500

Present Worth:

\$ 4,888,930

Time to Construct:

12 weeks

Alternative 3: Surface and Subsurface Soil Excavation, Offsite Treatment/Disposal

All known Site-related soil exceeding 500 ppm lead would be excavated and treated/disposed offsite under this alternative. Extensive surface and subsurface soil excavation would occur within all areas of concern identified under Findings of Remedial Investigation. Excavation would include soils currently capped with asphalt or cement. The former foundry facility would be decontaminated. This alternative is designated as Alternative II, Case 2, in the Feasibility Study

Capital Cost:

\$ 37,895,000

O & M Cost:

Present Worth: \$ 37,895,000

Time to Construct: 57 weeks

Alternative 4: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

As under Alternative 3, all known Site-related contaminated soil exceeding an estimated 500 ppm lead would be excavated. Soil characterized as non-hazardous would be segregated and transported to a non-hazardous waste landfill. Soil characterized as hazardous would be treated onsite by mixing it with reagents in a soil treatment system. The system would create a final product that immobilizes metals and meets RCRA Land Disposal Restrictions for lead. The stabilized product could be transported to a non-hazardous waste landfill for disposal. Prior to excavation of contaminated soil on the Abex and McCready Lots and the Holland property, existing asphalt and concrete would be removed and disposed as construction and demolition debris. The former foundry facility would be decontaminated. This alternative is identified as Alternative III, Case 2 in the Feasibility Study.

Capital Cost:

\$ 29,957,000

O & M Cost:

none

Present Worth:

\$ 29,957,000

Time to Construct:

55 weeks

Alternative 5: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal, Capping and Institutional Controls

Under this alternative, all Site-related soil exceeding 500 ppm lead would be excavated, with the exception of the Holland, Abex and McCready Lots, which would be permanently capped with asphalt. Institutional land-use controls and an operation and maintenance program would be implemented to control exposure to capped soils which constitute a principal threat. A groundwater monitoring program would also be implemented. This alternative also includes decontamination of the foundry facility. All excavated soils would be addressed as described under Alternative 4. A CERCLA five-year review would be required under this alternative. This alternative is identified as Alternative V, Case 2 in the Feasibility Study.

Capital Cost:

\$ 22,074,430

O & M Cost:

At feast \$ 23,500

Present Worth:

\$ 22,097,930

Time to Construct: 44 weeks

Alternative 6:

Surface and Subsurface Soil Excavation, Onsite and In Situ Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, all Site-related soil above 500 ppm lead within the Abex, McCready and Holland Lots would be treated in situ (in place) to immobilize the lead of concern. All other Site-related soil exceeding 500 ppm lead would be excavated and treated onsite as described under Alternative 4. The in situ treatment process is described in detail in the Feasibility Study. Generally, this process utilizes augers and mixing paddles to facilitate the injection and mixing of stabilizing agents into subsurface soils. Upon completion of this process, lead within the soil of concern is expected to be stabilized/solidified.

Prior to the in situ treatment, existing asphalt and concrete on the Abex Lot, McCready Lot and Holland Property would be removed and disposed as construction and demolition debris. After the treatment is complete, asphalt caps would be permanently placed and maintained on these areas. Operation and maintenance, institutional land-use controls and groundwater monitoring would be necessary for areas that have been treated in situ and capped. The former foundry facility would be decontaminated. A CERCLA five-year review would be required. This alternative is identified as Alternative VII, Case 2, in the Feasibility Study.

Capital Cost:

\$ 23,654,430

O & M Cost:

At least \$ 23,500

Present Worth:

\$ 23,677,930

Time to Construct: 45 weeks

Alternative 7: Surface and Limited Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

Under this alternative, all Site-related soils exceeding 500 ppm lead at 0 to 24 inches would be excavated. In addition, all Site-related soils exceeding 5000 ppm and constituting a principal threat would be excavated. All excavated soils would be addressed as described under Alternative 4. The former foundry facility would be decontaminated. A CERCLA five-year review would be required under this alternative. See next page for cost and construction time information.

Alternative 7, continued

Capital Cost: \$ 16,169,450 Annual Cost: none Present Worth: \$ 16,169,450 Time to Construct: 40 weeks

EVALUATION OF ALTERNATIVES

This section compares the alternatives listed above in accordance with the nine criteria required by the National Contingency Plan for the evaluation of remedial alternatives. Please see the attached glossary for further definitions of jargon associated with Superfund activity.

Overall Protection of Human Health and the Environment

Lead levels in the surface soil (0-12") at the Site exceed the health-based level of 500 ppm. For this reason alone, Alternative 1 (No Action) would not be protective of human health and therefore shall not be considered further as a remedial alternative.

Alternative 2 provides a remedy for existing surface soils exceeding 500 ppm lead. However, Alternative 2 does not provide a remedy for any soil with greater than 500 ppm lead below one foot in depth. Of concern in this regard are (1) soils which exceed 5000 ppm lead and present a principal threat, thus requiring treatment per the NCP, (2) soils which exceed 500 ppm below 12" in depth which will likely be exposed to the surface due to gardening or similar intrusive activities and (3) soils below 12" which will likely reach the surface due to redevelopment or similar activity. In addition, this alternative does not remove or treat soils in the Abex Lot which are the source of unacceptable lead levels in groundwater.

Alternatives 3 and 4 would remove all soils with lead exceeding 500 ppm and thus be protective of direct exposure to this metal, as well as the underlying aquifer with regard to lead releases.

Alternative 5 would remove soils exceeding 500 ppm from the Site with the exception of those within the Holland, Abex and McCready Lots, which would be permanently capped with asphalt. Since the Holland and Abex Lots both contain lead at levels exceeding 5000 ppm, Alternative 5 would not remediate a principal threat through treatment. Alternative 5 also may not be protective of the aquifer of concern because lead-contaminated soil in the Abex Lot would remain in place.

Alternative 6 would remove all soils exceeding 500 ppm from the Site, with exception of soils within the Abex, Holland and McCready Lots, which would be treated in situ. Provided the in situ treatment effectively immobilizes the lead, Alternative 5 is likely to be fully protective with regard to lead.

Alternative 7 would effectively eliminate all unacceptable health risk at the Site. This alternative would: (1) excavate all soil at 0-24" with lead exceeding 500 ppm, eliminating potential for unacceptable exposure due to gardening, redevelopment or similar intrusive activities, (2) remove and treat all soils which exceed 5000 ppm and thus present a principal threat per the National Contingency Plan and (3) excavate all soil exceeding 5000 ppm within the Abex Lot, thus removing the source of lead contamination in groundwater.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Under Alternatives 2 and 5, soils exceeding 5000 ppm lead within the Abex Lot will be capped rather than removed or treated in place. Since these soils appear to be responsible for elevated levels of lead in groundwater, these alternatives may not be consistent with the relevant and appropriate, chemical-specific requirement that lead in a potable aquifer should not exceed 15 ppb lead. All other alternatives are expected to be in compliance with existing Applicable or Relevant and Appropriate Requirements.

Long-term Effectiveness and Permanence

For reasons cited above under Overall Protection of Human Health and the Environment, Alternative 2 is not a protective remedy. While more protective than Alternative 2, Alternative 5 does not treat soils that constitute a principal threat. Alternatives 3 and 4 are equally protective. Both of these alternatives would be effective over the long term and provide a permanent remedy. Alternative 6, which includes in situ treatment of the Abex, Holland and McCready Lots, is expected to be protective in the manner of Alternatives 3 and 4, provided the in situ treatment successfully renders the soil of concern a nonhazardous waste per the Resource Conservation and Recovery Act.

Alternative 7 is expected to be similar in permanence and long-term effectiveness to Alternatives 3 and 4. While some soil with elevated lead levels would remain in place at depths over 2 feet under this alternative, soil movement during any long-term redevelopment activity is not expected to result in an unacceptable health risk. In addition, these soils do not constitute a principal threat.

Reduction of Toxicity, Mobility, or Volume Through Treatment

In the case of Alternatives 2 and 5, the principal threat at the Site would not be remediated through treatment. Alternative 6 remediates a principal threat through in situ treatment. While this treatment may be effective in reducing the mobility of lead in the soil of concern, this cannot be confirmed at this time. Alternatives 3, 4 and 7 all reduce inherent hazards posed by principal threats at the Site by the use of the proven treatment technology of stabilization/solidification. While Alternatives 3 and 4 treat more soil than Alternative 7, the additional soil of concern does not constitute a principal threat.

Short-term Effectiveness

Possible short term effects of all of the "action" alternatives include exposure to dust emissions and erosion of soil. Dust generation and erosion can be mitigated through water spraying and the implementation of a stormwater management plan, respectively. A Health and Safety Plan, which includes sampling and monitoring, shall be developed and implemented under all of the action alternatives to assure protection of both local residents and workers.

Implementability

Alternative 2 is the most implementable due to the minimal work to be performed. Alternatives 2, 5, and 6 all include maintenance of caps and institutional controls. Difficulties are likely to be encountered in the implementation of land-use controls and a permanent cap maintenance program. Groundwater monitoring would also be required under each alternative.

Alternatives 3, 4, 5 and 6 would include the most soil excavation (or remedial activity) within residential areas, and as a result, the most significant disruption of the daily routine of residents. To fully implement these alternatives, some relocation of residents may be necessary. While temporary relocation may

Alternatives 3 and 4, while fully protective, both involve extensive excavation within residential areas. While some temporary relocation may also be needed under Alternative 7, a reduction in the extent of subsurface excavation under this alternative should minimize community disruption to the extent feasible and thus reduce implementability problems. In addition, Alternative 7 is expected to achieve a risk reduction similar to that under Alternatives 3 and 4, but at a significantly lower cost. A CERCLA five-year review will help assure the protectiveness of Alternative 7.

Additional Information on the Proposed Plan

Additional information on the investigations conducted at the Abex Superfund site may be found at the site repository, located in the Reference Section of the Portsmouth Public Library - Main Branch, 601 Court Street, in downtown Portsmouth. The files at the library include all information that was used to select the Proposed Plan and develop this document. Questions or comments on this Proposed Plan may be directed to: Ms. Jamie Walters, Virginia Department of Waste Management, 101 North 14th Street, 18th Floor, Richmond, Virginia 23219, (804) 225-2903. Formal comments should be postmarked no later than May 28, 1992 to be considered in this cleanup decision.

Glossary

- ADMINISTRATIVE RECORD FILE A file of information and data gathered at a Superfund site that is used to decide what cleanup plan is most appropriate to protect public health and the environment from the Superfund site hazards. The file is located in the Information Repository, usually a library near the site neighborhood.
- CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act enacted by the United States Congress in 1980 to identify and clean up the nation's worst hazardous waste sites. Also known as "Superfund."
- **FEASIBILITY STUDY** The Feasibility Study uses the data gathered during the Remedial Investigation to identify various technologies or cleanup strategies that would be appropriate for the site, and provides a comparison of these alternatives to identify the cleanup option selected in the Proposed Plan.
- INFORMATION REPOSITORY The place where the Administrative Record File is kept, usually a library or other publically accessible location near the site neighborhood. Information Repository also refers to a separate binder or collection of information about the site, and may include newspaper clippings, press releases, public notices, fact sheets, and other information not included in the Administrative Record File.
- PROPOSED PLAN The plan presented to the members of a community for cleaning up, or remediating, the Superfund site. The Proposed Plan is based on information in the Remedial Investigation and Feasibility Study reports. All of this information is housed in the Information Repository.
- **REAGENT** A substance used in a chemical reaction to detect, measure, examine, or produce other substances.
- REMEDIAL INVESTIGATION The indepth study of a Superfund site to find out what threats the site contamination may pose to human health and/or the environment. During the Remedial Investigation, many samples are taken of air, groundwater, surface water, sediment, and soil to come to a conclusion about the site. Closely followed by the Feasibility Study.
- **RECORD OF DECISION** The official version of the cleanup plan to be used at a Superfund site.

be necessary under Alternative 7, this alternative would reduce community disruption by minimizing the quantity of soil excavation, while still being protective of human health.

In the case of Alternatives 4 and 7, implementation of onsite treatment will require extensive planning and construction activities. In addition, pilot scale studies will be required to help design the system. The implementation of these alternatives will require significant additional activity onsite and will be more time-consuming than Alternative 3, where treatment is performed at an existing offsite facility permitted under the Resource Conservation and Recovery Act.

Alternative 6 includes in situ treatment of the Abex Lot and the Holland Lot, as well as treatment of excavated soils in an additional onsite treatment unit. The use of two separate onsite treatment units may further increase the time necessary to complete the remediation. Extensive pilot-scale treatment studies will be necessary to confirm the effectiveness of the in situ treatment system. In addition, significant administrative activity will likely be required to obtain approval from the Virginia Department of Waste Management to fully implement in situ treatment as a permanent remedy. As a result of these factors, this alternative will likely take the longest to implement.

Cost

Alternative 2 has the lowest capital cost. However, long-term cap maintenance and groundwater monitoring costs would be incurred. The estimated present worth of this alternative is \$ 4,865,430. Alternative 3 is the most costly alternative with an estimated present worth of \$ 37,895,000, while the estimated present worth of Alternative 4 is \$ 29,957,000. There are no annual operation and maintenance costs associated with either alternative. Alternative 5 and 6 are relatively equal in estimated present worth at \$ 22,097,930 and \$ 23,677,930 respectively. In the case of both alternatives, operation and maintenance costs would be incurred.

The estimated present worth of Alternative 7 is \$ 16,169,450. No annual costs are anticipated under this alternative.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated at the end of the public comment period and will be described in the Responsiveness Summary section of the Record Of Decision document, which will be placed in the Administrative Record File at the Portsmouth Public Library - Main Branch.

SUMMARY OF THE PREFERRED ALTERNATIVE

Based on an evaluation of the alternatives, Virginia Department of Waste Management and EPA have identified Alternative 7 - Surface and Limited Subsurface Soil Excavation, Onsite Treatment and Offsite Disposal as the preferred alternative. Based on current information, this alternative appears to provide the best balance of tradeoffs among the alternatives with respect to the evaluation criteria.

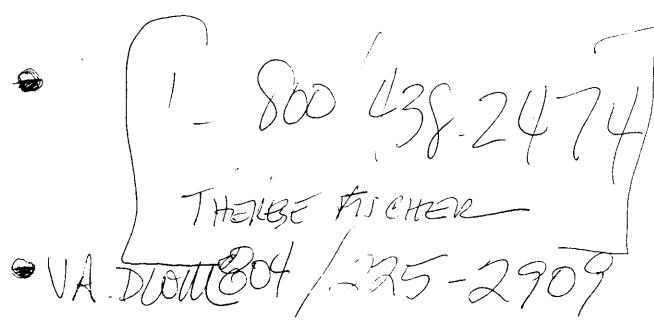
Alternative 2 was eliminated because it did not provide treatment of soils which constitute a principal threat per the National Contingency Plan and would not be protective where gardening or similar activities or redevelopment may occur. Alternative 5 has also been eliminated due to its failure to treat a principal threat. Alternative 6 was eliminated due to potential implementability problems with in situ treatment and/or the combination of in situ and onsite treatment.

AUGUST 26TH PUBLIC MEETING REGARDING ABEX SUPERFUND SITE 7:00 P.M., CITY COUNCIL CHAMBERS

MODERATOR, CHARLES JOHNSON

WELCOMEMAYOR GLORIA O. WEBB
<pre>INTRODUCTIONS</pre>
REPORT ON BLOOD LEAD TESTINGDR. VENITA NEWBY-OWENS
BRIEF DEFINITION AND STATUS OF RECORD OF DECISIONEPA REPRESENTATIVE
GROUND RULESCHARLES JOHNSON
QUESTIONS AND ANSWERS
TOLL FREE INFORMATION LINE. TAG LOT. LEEANNE NURSE ABUTG, APPLICATION
ADJOURN





PANELISTS

- 1. Venita Newby-Owens, M.D., Director of Public Health
- 2. Cynthia Lewis, M.D., ATSDR
- George E. Tunstall, Chemist Supervisor Bureau of Chemistry, Commonwealth of Virginia
- 4. Leeanne Nurse, Community Relations Coordinator, EPA
- 5. Reginald Harris, Toxicologist, EPA
- 6. Ron Davis, Remedial Project Manager, EPA
- 7. Kim Hummel, Chief of VA/WV Remedial Section, EPA
- 8. K. C. Das, Director of Superfund, Virginia Department of Waste Management (VDWM)
- 9. Melissa Klein, Community Relations Specialist, VDWM
- 10. Danny E. Cruce, PRHA
- 11. William Froehlich, City Assessor



Community Update

For Citizens Living Near the Abex Superfund Site

Virginia Superfund Program

Winter 1992

Removal Action Planned

The most important information for residents living near or interested in the Abex Superfund site is that the U.S. Environmental Protection Agency has

been negotiating with former site owners to conduct a removal action in the near future to reduce Lead levels in soils surrounding the site. An agreement has been negotiated to get a removal action started toward the end of March or early April. Neighbors will be contacted by the Department of Waste Management or the Environmental Protection Agency as soon as more details are known about the date, time, and process of the soil removal action. It is possible that members of the EPA removal team will be going door-to-door in the site neighborhood to talk with residents about the plans for the removal action. Citizens with questions or concerns can call Jamie Walters at the Virginia Department of Waste Management in Richmond, at (804) 225-2903, or call Carol Pratt, Public Information Officer with the City of Portsmouth, at 393-8432. In addition, the Department of Waste Management contacts Portsmouth officials regularly about the progress at the site.

The Superfund Process

The Remedial Investigation for the Abex Site started in October 1990.

During the Remedial Investigation, or RI, many samples have been taken of soil, water, and sediment on and around the former Abex brass foundry in Portsmouth, Virginia. Scientists and technicians took hundreds of samples about 700 feet in any direction from the site, including the surrounding residential area.

After the Remedial Investigation has been completed, scientists work with engineers to

determine how the site contamination may affect public health and the environment. They then write a Feasibility Study, or FS, which compares various technical cleanup options that will protect public health and the environment. The Virginia Department of Waste Management is working now with the U.S. Environmental Protection Agency and the engineering firm for Abex Corporation to evaluate these technical cleanup solutions.

Another issue of importance to neighbors of the site is the progress of the Remedial Investigation and Feasbility Study, or RI/FS. We are

Recent Progress

almost finished with the investigation, and are now working to choose a cleanup action that best meets a number of criteria required by the Superfund program. When choosing a technical remedy for site contamination, the Department of Waste Management and the Environmental Protection Agency consider nine (9) factors:

- Will the remedy protect human health and the environment?
- Does the remedy comply with other state and federal environmental laws?
- ♦ Is the remedy effective and permanent in protecting public health and the environment in the long term?
- ♦ Does the remedy reduce the toxicity, mobility, and volume of contamination through treatment?
- ♦ Is the remedy effective in the short term?
- ♦ Is the remedy implementable, or feasible?
- ♦ Is the remedy cost effective?
- ♦ Does the State accept the remedy?
- ♦ Does the community accept the remedy?

These factors will be considered by the VDWM and the EPA as we determine the best overall cleanup strategy for the site.

Your Involvement is important

The Superfund law ensures your right to information about the Superfund site in your neighborhood, and the Department of Waste Management sees community participation as a priority. We have talked about various opportunities for public participation in previous newsletters or at workshops in your community.

We are now entering a period of Superfund activity when the public participation requirements in the Superfund law are very strict. Once the

Remedial Investigation and Feasbility Study have been completed, the Department of Waste Management and the Environmental Protection Agency will choose a preferred cleanup strategy for the site. A summary of this cleanup strategy will be written in a document called the *Proposed Plan*. Right now, we expect to have the Proposed Plan available in early April 1992.

What happens when the Proposed Plan is available? The Department of Waste Management will notify citizens of a public comment period and a public meeting that will be scheduled to give you an opportunity to hear a summary of the cleanup plan and offer your questions or comments about the plan. If the Proposed Plan for site cleanup is available by early April, we will schedule the comment period and workshop for April. A public notice will be placed in the local newspaper, and sent to citizens who are on the mailing list.

For More Information

An information file has been established at the Portsmouth Public Library - Main Branch, 601 Court Street,

Portsmouth, Virginia. The Library was temporarily closed for repairs, but is now open for citizens who wish to review the file for the Abex site. The file binders are kept by the Reference Librarians.

The Remedial Investigation and Feasibility Study reports, when finished, and the Proposed Plan, will be added to the file. After the public comment period and public meeting, a final cleanup Record of Decision (ROD) will be placed in the site file at the library.

Citizens with questions or concerns about the Abex Superfund site can call Ms. Jamie Walters, your Department of Waste Management Superfund contact, at the telephone number at the right.

Your Superfund Contact

Ms. Jamie Walters
Commonwealth of Virginia
Department of Waste Management
101 N. 14th Street
18th Floor
Richmond, Virginia 23219
(804) 225-2903

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Community Update

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Recent Progress

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- ◆ Does the community accept the remedy?

These factors will be considered by the VDWM and the EPA as we determine the best overall cleanup strategy for the site. CORRESPONdents



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Charles Riddick, Jr. 718 Henry St. Portsmouth, VA 23704

Dear Mr. Charles Riddick, Jr.:

This letter is to inform you of the results of soil samples that were taken at 718 Henry St. by the EPA on June 12 and 13, 1992.

Samples were taken from the backyard of your property.

The lead concentrations are as follows:

back yard - 430 ppm and 968 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Martin Williams 717 Henry St. Portsmouth, VA 23704

Dear Mr. Martin Williams:

This letter is to inform you of the results of soil samples that were taken at 717 Henry St. by the EPA on June 12 and 13, 1992.

Samples were taken from the crawlspaces of your property.

The lead concentrations are as follows:

• crawlspace - 3377 ppm and 1286 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mrs. Lila Bailey 715 Henry St. Portsmouth, VA 23704

Dear Mrs. Lila Bailey:

This letter is to inform you of the results of soil samples that were taken at 715 Henry St. by the EPA on June 12 and 13, 1992.

Samples were taken from the crawlspaces of your property.

The lead concentrations are as follows:

• crawlspace - 2972 ppm and 1204 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Edward White 700 Lincoln St. Portsmouth, VA 23704

Dear Mr. Edward White:

This letter is to inform you of the results of soil samples that were taken at 700 Lincoln St. by the EPA on June 12 and 13, 1992.

Samples were taken from the backyard and crawlspaces of your property.

The lead concentrations are as follows:

- back yard 313.9 ppm
- crawlspace 464 ppm and 257 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Allen Dillard 704 - 706 Lincoln St. Portsmouth, VA 23704

Dear Mr. Allen Dillard:

This letter is to inform you of the results of soil samples that were taken at 706 Lincoln St. by the EPA on June 12 and 13, 1992.

Samples were taken from the backyard and crawlspaces of your property.

The lead concentrations are as follows:

• back yard - 411 ppm

• crawlspace - 626 ppm and 619 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Charles Riddick, Sr. 720 Henry St. Portsmouth, VA 23704

Dear Mr. Charles Riddick, Sr.:

This letter is to inform you of the results of soil samples that were taken at 720 Henry St. by the EPA on June 12 and 13, 1992.

Samples were taken from the crawlspaces of your property.

The lead concentrations are as follows:

crawlspace - 1155 ppm and 1174 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Tyrone Riddick 1720 Green St. Portsmouth, VA 23704

Dear Mr. Tyrone Riddick:

This letter is to inform you of the results of soil samples that were taken at 1720 Green St. by the EPA on June 12 and 13, 1992.

Samples were taken from the front yard, north side, backyard and crawlspaces of your property.

The lead concentrations are as follows:

- front yard 80.3 ppm; north side is 47.2 ppm
- back yard 32.2 ppm
- crawlspace 701 ppm and 528 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Mr. Mitchell Linwood, Sr. 1724 Green St. Portsmouth, VA 23704

Dear Mr. Mitchell Linwood, Sr.:

This letter is to inform you of the results of soil samples that were taken at 1724 Green St. by the EPA on June 12 and 13, 1992.

Samples were taken from the front yard, backyard and crawlspaces of your property.

The lead concentrations are as follows:

- front yard 26.4 ppm
- back yard 454 ppm
- crawlspace 1720 ppm and 3016 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,

Terry Stilman (3HW31)
On-Scene Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

July 13, 1992

Ms. Carolyn Cotton 1728 Green St. Portsmouth, VA 23704

Dear Ms. Carolyn Cotton:

This letter is to inform you of the results of soil samples that were taken at 1728 Green St. by the EPA on June 12 and 13, 1992.

Samples were taken from the front lawn, backyard and crawlspaces of your property.

The lead concentrations are as follows:

- front yard 172.5 ppm
- back yard 567 ppm
- crawlspace 1132 ppm and 528 ppm

EPA is presently analyzing these results. You will be notified about future clean up decisions when the EPA completes its data review.

Sincerely,

Terry Stilman (3HW31)
On-Scene Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

MEMORANDUM

SUBJECT: Weekly Activity Report - Week Ending

December 25, 1992

FROM: Marcia E. Mulkey

Regional Counsel (3RCOO)

TO: Stanley L. Laskowski (3RA00)

Acting Regional Administrator

1. <u>Projected Litigation Referrals</u> -- Region III's projection of referrals for the first quarter is 2.*

2. Cases Referred --

PRN SENT TO DOJ SEEKING INJUNCTIVE RELIEF AND REIMBURSEMENT OF COSTS UNDER SECTIONS 106 AND 107 OF CERCLA AT THE ABEX CORPORATION SUPERFUND SITE IN PORTSMOUTH, VIRGINIA

The PRN seeks reimbursement of response costs at the Site totalling \$206,375.96 as of January 31, 1992, and to have the PRPs perform the RD/RA outlined in the ROD issued on September 31, 1992. The named PRPs are all current owners of contaminated portions of the Site. The Site is contaminated with high levels of lead which resulted from the Abex foundry operations. The foundry operated from 1928 to 1978 and produced railroad car journal bearings. Newly identified PRPs may include several railroad company generators that arranged for the treatment or disposal of hazardous substances at the Site. They transported their spent journal bearings to Abex for recycling. The foundry would melt off the lead-leaden babbitt material used in the railroad car braking system and then the molten material would be remolded to make new brake linings. The railroad companies received a credit on the purchase of new journal bearings based upon the amount of scrap material they brought to the foundry. A draft three party consent decree involving the United States, the Commonwealth of Virginia, and the PRPs has also been sent to DOJ.* ATTORNEY - WENDY A. MILLER - FTS (215) 597-3230

3. Cases Filed by DOJ -- None.



PARAFT

COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT 11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23219 (804) 225-2667 TDD (804) 371-8737

July 7, 1992

Ms. Charlotte Scott 5658 Craney Brook Lane #B Portsmouth, Virginia 23703

Dear Ms. Scott,

Virginia Department of Waste Management and the U.S. Environmental Protection Agency will be unable to provide an additional workshop prior to the close of the Public Comment Period on July 10, 1992. Upon completion of the Responsiveness Summary, which formally addresses the verbal and written comments received, a fact sheet summarizing citizen concerns will be sent to the mailing list.

VDWM and EPA officials feel ample opportunity for oral and written comments has been granted to interested residents. Attached you will find a chronology of activities provided during the comment period. As denoted on page 2, very few activities are required by Superfund law. However, the intent of the law, via the National Oil and Hazardous Substances Pollution Contingency Plan, or NCP, encourages proactive and regular involvement. The document provides for a 30 day extension when the Lead Agency is given a timely request. This request was made by residents and granted. The public comment period will conclude on July 10, 1992. The NCP further states that any further extensions of the Public Comment Period are within the discretion of the lead agency (VDWM). It has been decided that the comment period will not be extended for an additional 30 days because of the activities listed on page 2.

This does not mean that communications will cease. Your input and involvement are very important. I understand how frustrating and complex the Superfund process can be. We will make every effort to provide understandable information to the Abex Superfund Site community. Additional community relations activities will be planned for the near future.

Please contact Ms. Leanne Nurse at (215) 597-6920 with questions about Removal Action activities. Feel free to contact me at the address listed above or at (804) 225-2903.

Very Sincerely,

Ann D. Troutman
Community Relations Specialist

ADT

cc: (Everybody and their grandmother) Ha! Ha! Ha!

AND TROUTMAND



Office of the Mayor P. G. Nox 820 Portsmouth, Virginia 23705-0820

Established 1752

(804)-393-8748

October 26, 1992

The Honorable Norman Sisisky
House of Representatives
309 County Street
Suite 204
Portsmouth, Virginia 23704

Dear Mr. Sisisky:

I am in receipt of a copy of a letter to you dated September 30, 1992 from Mr. Edwin B. Erickson, Regional Administrator, United States Environmental Protection Agency (EPA). The EPA indicated in that letter that they are aware of the mistrust and frustration among residents directly affected by the ABEX Superfund site. According to Mr. Erickson, they were addressing this mistrust by mailing copies of the ROD to the residents and meeting with them to answer questions in mid-October.

The EPA, however, is still far removed from the daily concerns and frustrations. During their presentation to City Council, EPA officials indicated that the remediation process which is serious enough to include excavation down to the water table, serious enough to include demolition of the former foundry buildings, serious enough to cost a projected \$28 million, is not serious enough to include the permanent relocation of 160 families who must, in the meantime, wait up to 2 1/2 years or more for the process to be concluded.

I, therefore, request your intervention to secure any grant funds or Section 8 certificates to begin the immediate relocation of these residents. The City and the Portsmouth Redevelopment and Housing Authority stand ready to proceed and assist in any way possible.

- WED 15:44 SIS PORTS

Seanne - 02 F/OCT 21 1992



City of Partsmouth, Virginia

Office of the City Manager P. G. Bex 820 Portamouth, Birginta 23705-0820

(804) 393-8641

October 20, 1992

The Honorable Norman Sisisky U. S. Congressman 801 Water Street Portsmouth, Virginia 23704

Dear Congressman Sisisky:

Established 1752

I want to thank you for having one of your aides attend the most recent meeting of the Portsmouth City Council when representatives of the United States Environmental Protection Agency discussed the Record of Decision for the Abex Superfund site. As you are certainly aware, this issue is of extreme importance to the City and the residents who live within the Superfund site boundaries.

Within this area are twenty-two housing units which are privately owned. Residents have expressed a desire to the Portsmouth City Council to be permanently relocated from the area and that the housing be demolished. Since the local government certainly does not have the funds to accomplish this, I am asking your assistance in requesting the EPA to acquire the housing and demolish it so that the residents may relocate elsewhere.

I appreciate any help you are able to provide the City in this most important matter. I realize that the Federal Government may not have provided similar assistance in the past, but the unique nature of these circumstances demands that fast and decisive actions be taken.

Sincerely

V. Wayne Orton City Manager

VWO/ces cc: City Council

CONGRESSMAN NO PRIMAN SISISIN

309 County Street, Suite 204 Portsmouth, VA. 23704

Telephone FTS

804 393-2068

FAX

827-6308 441-3208

FAX TRANSMITTAL

DATE: 10/21/92
NUMBER OF PAGES (including this page)
TO: EPA - PHIL ATTN! JOAN GOODES
FROM: A. DERBY
RE: ABEX SUPERFUND SITE

REMARKS: Youn, I am mailing you the
hard copy. anothing you condo to

1.1.2011



Office of the Mayor
P. G. Box 820
Portsmouth, Virginia 23705-0820
July 22, 1992

(804)-393-8746

Dear Citizen,

Ketublished 1752

On Wednesday, August 26, 1992, at 7:00 p.m., a meeting will be held in the City Council Chambers for the purpose of discussing your concerns about lead contamination and the Abex Superfund Site. At that time, representatives from the appropriate State and Federal agencies, as well as the Portsmouth Redevelopment and Housing Anthority and the Portsmouth Health Department will be available to respond to your specific questions.

This date has been selected primarily to allow the United States Environmental Protection Agency time to complete compiling responses to all of the comments gathered during the public comment period. Hopefully, this meeting will result in everyone having a better understanding of this issue.

In the meantime, should you have any questions, please contact Ms. Carol Pratt, Public Information Officer, 393-8432, or Mr. Charles Johnson, Director of Human Services, 393-8641.

Sincerely,

Gloria O. Webb

Mayor

cc: Members of Portsmouth City Council

V. Wayne Orton, City Manager
Stuart Katz, City Attorney
Charles Johnson, Director of Human Services
Carol Pratt, Public Information Officer
Venita Newby-Owens, M.D., Director of Public Health
Danny E. Cruce, Director of Portsmouth Redevelopment
& Housing Authority
William Woodfin, Executive Director, Virginia Department
of Waste Management
Leeann Nurse, Community Relation Coordinator, U. S.
Environmental Protection Agency





NEW KIRN BUILDING
339 HIGH STREET
P.O. BOX 1098
PORTSMOUTH, VIRGINIA 23705-1098
TELEPHONE (804) 399-5261
MAIN OFFICE FAX 399-8697
PURCHASING FAX 399-8695
TDD # 299-7313

November 13, 1992

COMMISSIONERS
P. WARD ROBINETT, JR., Chairman
GEORGE K. EBERWINE, JR., Vice-Chairman
McFALL C. GOURDINE
SANDRA L. SPRINKLE
ERNEST F. HARDEE
BERTHA M. EDWARDS

EXECUTIVE DIRECTOR
DANNY E. CRUCE

LILLIAN D. COOPER

Ms. LeAnne S. Nurse, 3EA21 Environmental Protection Agency Region 3 841 Chestnut Street Philadelphia, PA 19107

SUBJECT:

Washington Park Public Housing Park

Construction of a New Screen/Brick Column Fence

Portsmouth, Virginia

Dear Ms. Nurse:

Portsmouth Redevelopment and Housing Authority would like to solicit you guidance as to the continuation of the above-referenced construction projection Washington Park Housing Project.

I have enclosed a copy of recent test results for 35 soil samples taken by Environmental Testing Services, Inc., at each footing location for the proposed screen/brick wall. The Authority has been given an action level of 500 Pb in mg/kg. You will note that only three samples had lead levels higher than the determined action level. Please also note that the footings along Effingham Street had been dug to a depth of 30", this will be revised to not exceed 24" in depth.

Please review these test results and inform us of your recommendations relative to this pending construction project. If the EPA determines that the performance of this construction item would not cause an immediate danger to residents, the Authority would suggest that the footing soil be containerized where lead levels are noted as elevated during the construction of this project.

We appreciate your cooperation in assisting the Authority with this matter. Should you need some further information, please contact me at (804) 398-9129 or the above additional contact me at (804) 398-9129 or

Very truly yours,

Charles E. Morrell

Chief Engineer

Enclosure

REGETVED NOW 1.9 1992

3EA21



Tom - 1897 ALE

P.O. Box 12715 • 888 Norfolk Square • Norfolk, Virginia 23502 • (804) 481-ETSI (3874) • Fax (804) 481-0379
October 29, 1992

ANALYTICAL SERVICES REPORT SHEET

Customer: Mr. Buddy Cline G.L. Cline & Son 3110 Victory Blvd. Portsmouth, VA 23702 Sample Description: 35 soil samples delivered on October 15, 1992 designated as Washington Park.

RESULTS

I. Total Lead Analysis: EPA SW-846 Method 6010.

ETS ID#	Sample ID	Pb in ma/ka
23566	1	18.8
23567	1 2 3	161
23568	3	<u> </u>
23569	4	290
23570	5	80.8
23571	5 6 7 8	37.9
23572	7	78.3
23573	8	24.0
23574	9	170
23575	10	183
23575-REP	10-REP	148
23576	` 11	197
23577	12	458
23578	13	760
23579	14	257
23580	15	191
23581	16	230
23582	17	145
23583	18	77.3
23584	19	116
23585	20	207
23585-REP	20-REP	66.4
23586	21	75.6
23587	22	97.8
23588	23	42.5
23589	24	305
23590	25	64.4
23591	26	78.7
23592	27	143

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Fixe | 105 - 2008 | Fixe

Anne S. Burnett
Quality Control Officer

The information presented in the report represents the laboratory analyses performed on the samples provided to Environnmental Testing Services, Inc. in accordance with the test methods requested and described above. Environnmental Testing Services, Inc. is not responsible for any use of this information by its clients and shall not reveal these results to any person or entity without written authorization from its client. Any liability on the part of Environnmental Testing Services, Inc. shall not exceed the sum paid by the client to Environnmental Testing Services, Inc. the work performed.



P.O. Box 12715 • 888 Nortolk Square • Nortolk, Virginia 23502 • (804) 461-ETSI (3874) • Fax (804) 461-0379

Page 2 of 2

I. Total Lead Analysis (continued): EPA SW-846 Method 6010.

ETS ID#	Sample ID	Pb in ma/ka
23593	28	190
23594	29	43.7
23595	30	48.0
23595~REP	30-REP	58.6
23596	31	181
23597	32	174
23598	33	824
23599	34	445
23600	35	349

Blank < 0.02

Blank spike 86.7% recovery Matrix spike 86.8% recovery

Anne S. Burnett
Quality Control Officer

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Office of the Mayor P. G. Box 820 Portsmouth, Birginia 23705-0820

(804)-393-8746

Established 1752

July 22, 1992

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Sincerely,

Seauca O. Webb.

Mavor

Cc: Members of Portsmouth City Council

V. Wayne Orton, City Manager

Stuart Katz, City Attorney
Charles Johnson, Director of Human Services
Carol Pratt, Public Information Officer
Venita Newby-Owens, M.D., Director of Public Health
Danny E. Cruce, Director of Portsmouth Redevelopment

& Housing Authority
William Woodfin, Executive Director, Virginia Department
of Waste Management
Leeann Nurse, Community Relation Coordinator, U. S.
Environmental Protection Agency



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10 Feranno Duras	From Carel Pratt
co. IPA	Co.
Dept.	Phone " 393-8431
Fox #1-215-597-0761	Fax #

Office of the Magar P. G. Fax 820 Portsmouth, Virginia 23705-0820

(804)-393-8746

September 3, 1992

The Honorable Norman Sisisky U. S. Congressman 801 Water Street Portsmouth, Virginia 23704

Dear Congressman Sisisky:

Tstablished 1752

As you know, the U.S. Environmental Protection Agency and the Virginia Department of Waste Management have been assessing and evaluating the environmental concerns of the Abex Superfund Site for more than a decade. The site radius encompasses some privately owned homes, a public housing park, a public playground, a drug rehabilitation center, and some property targeted for development.

Despite a series of public meetings, short term remedial actions, and testing of blood lead levels of residents, there is still a great deal of mistrust and frustration among the residents of the area. Understandably, they are frightened and concerned about their health and the health of their children. Until this issue can be brought to closure, a pall will cover our community, leaving citizens frustrated and anxious, and stifling our opportunity to develop the PortCentre Industrial Park.

I urge you to contact the EPA and do whatever you can to have EPA officials expedite their handling of this matter, including whatever remedial actions are required to be taken. Your assistance in this matter is greatly appreciated.

Sincerely,

Gloria O. Webb

Bein Co Wave-

Mayor

GOW/ces cc: City Council





Office of the Mayor P. G. Box 820 Portunauth, Airginia 23705-0820

Setablished 1752

(804)-393-8746

September 18, 1992

Ms. Helen Person 1314 Green Street Portsmouth, VA 23704

Dear Ms. Person:

As promised at the City Council meeting of September 8, 1992, please find attached a copy of my letter to Congressman Sisisky in reference to the Abex Superfund site. I am hopeful that Congressman Sisisky will be able to use his influence to speed up the process of the federal Environmental Protection Agency (EPA) and to encourage appropriate action on their part.

I will continue to keep you informed of my efforts, and I will continue to work with you and the other residents until the State and federal agencies responsible in this matter make their determinations and take action. As you may now know, the EPA's Record of Decision was not completed by September 11, 1992 as previously indicated. District Judge Robert E. Payne has given the EPA until the end of September to complete the report. I will make sure that you and the other residents of Washington Park are notified as soon as the report is available.

Sincerely,

Gloria O. Webb

Moin O Well

Mayor

GOM/dlw

cc: Stuart Katz Carol Pratt



Office of the City Manager P. G. Box 820 Portsmouth, Birginia 23705-0820

(804) 393-8641

Established 1752

December 1, 1992

The Honorable John W. Warner U. S. Senator 225 Russell Building Washington, DC 20510

Dear Senator Warner:

I have received your letter which included a response from the Department of Housing and Urban Development about relocation of residents of Washington Park. The letter is very measured and deliberate in what it says. However, in my opinion, it does not justly consider that our citizens are not merely concerned about the lead contamination: they are frightened. They have cause to be frightened.



The residents come to every meeting of the City Council and they tell us about elevated blood lead levels of their children. They know that the Environmental Protection Agency has recommended excavation of the soil, yet there is no tangible timetable as to when that might happen. In the meantime, they continue living in an area which has been designated as a Superfund site and a health hazard.

These citizens are poor, which many think is the chief reason why the Federal Government appears to be dragging its feet on this issue. If the contamination were in a high income area, the citizens believe that a definitive action would have already been taken.

Our elected officials, the members of the City Council, believe that the Federal Government needs to take whatever action is necessary to relocate these residents. It is not fair to ask them to continue living there, perhaps for several years, before the administrative and legal processes of our bureaucracy finally result in some action. Relocation should begin immediately and it should be permanent. The homeowners should be relocated as well as the residents of the housing park.



Office of the City Manager P. G. Box 820 Portsmouth, Virginix 23705-0820

(804) 393-8641

December 1, 1992

The Honorable Charles S. Robb U. S. Senator Russell Senate Office Building 1st & Constitution, NE, Room 493 Washington, DC 20510

Dear Senator Robb:

Hatablished 1752

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I am requesting that you arrange a meeting with yourself, Senator Robb, Congressman Sisisky, and me to discuss the feasibility of special legislation and other means to address this serious situation. I will be glad to come to Washington to meet with you or with your senior representative.

I hope I have conveyed the real frustration that both our citizens and our City Council members feel on this issue. The need for action is unequivocal, and the City Council is determined to pursue legal means if no other alternative results in action.

Thank you again for your assistance in intervening with the appropriate agencies.

V. Wayne Orton City Manager

VWO/vls

cc: City Council
Mary Ann Wilson, Manager, U.S. Department of HUD
Honorable William K. Reilly, Administrator, EPA
Residents of Abex Superfund Site
Stuart Katz, Portsmouth City Attorney



Senator Robb Letter 12/1/92

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V. Waxne Orton City Manager

VWO/vls

cc: City Council
Mary Ann Wilson, Manager, U. S. Department of HUD
Honorable William K. Reilly, Administrator, EPA
Residents of Abex Superfund Site
Stuart Katz, Portsmouth City Attorney





VANET.
FILE
LSN

City of Portsmouth, Birginia

Office of the City Manager F. G. Nax 820 Bortsmooth, Birginia 23705-0820

Established 1752

(804) 393-8641

December 1, 1992

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Office of the City Manager \$. G. Box 820 Portsworth, Birginis 23705-0820

(804) 393-8541

Reinblished 1752

December 1, 1992

The Honorable Charles S. Robb U. S. Senator Russell Senate Office Building 1st & Constitution, NE, Room 493 Washington, DC 20510

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Office of the City Manager P. G. Nox 820 Portsmouth, Birginia 23705-6820

Tstablished 1752

(804) 393-8641

August 12, 1992

Ms. Leeanne Nurse Community Relations Coordinator United States Environmental Protection Agency 841 Chestnut Building Philadelphia, Pennsylvania 18107

Dear Ms. Nurse:

Over the past several months, questions have cropped up almost daily concerning the effects of the Abex Superfund Site from residents in the radius of the the former foundry site, as well as from the media and other interested citizens. The complexity of the removal and remedial processes, coupled with the fact that the processes are governed by state and federal laws, has created frustration on the part of everyone. This has been exacerbated by the untimely departures of the last two Community Relations Coordinators for the Virginia Department of Waste Management, who, according the Community Relations Plan, serve as the primary designated spokesperson and public liaison for the remedial action.

As the EPA has jurdisdiction over the site, I am writing to request that a toll free "hot line" be established whereby individuals may call to have their inquiries investigated and responded to. Additionally, this system would serve as rumor control. Centralization of such inquiries should reduce the confusion, and hopefully establish some confidence level in our community.

Please let me know, at the very earliest possible moment, how we may assist locally to accomplish this request.

Sincerely,

Carol E. Pratt
Public Information Officer

Cirol & Pratt

cc: V. Wayne Orton, City Manager
Stuart E. Katz, City Attorney
Charles Johnson, Director of Minan Services

Learne Nura



COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT

11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23218 (804) 225-2667 TDD (804) 371-8737

June 29, 1992

Ms. Kimberly Hummel Chief Remedial Section U. S. EPA, Region III 841 Chestnut Building Philadelphia, PA 19107

Re: Public Meeting (Washington Park Community)

Dear Kim:

This is a follow-up to the recent public meeting concerning the Abex Superfund site, which I had the opportunity to attend.

As you are aware, several issues were discussed at this meeting which in my judgement require further clarification, hopefully by the next meeting to be held on July 9, 1992. These issues are briefly summarized below.

- Several members of the Washington Park community have expressed concerns regarding health and safety during the upcoming removal and/or remedial actions. It would be most helpful to hand out a detailed explanation of planned safety measures even though they were mentioned at the meeting.
- It is also recommended that a detailed fact sheet describing the effects of lead on humans be distributed at the meeting. Incidently, this item was discussed at length during the meeting.
- The commitments made by the ATSDR representative at the meeting was unclear to me as well as to many others. Any assistance this agency may offer to alleviate any public health concerns at this site would be most desirable.

Ms. Kimberly Hummel 6/29/92 Page 2

I believe the above-mentioned issues should be fully developed prior to the next meeting in order to assure an orderly removal and/or remedial action. As always, I and my staff are available to assist you in this effort.

I would also like to take this opportunity to thank you and your staff for the continuing support to the Commonwealth throughout this difficult process. Special thanks are due to Ms. Leanne Nurse and Mr. Reggie Harris for their extra efforts at the last public meeting.

Enclosed is a copy of the news article relative to the June 25th public meeting. Should you have any questions concerning this, please call me at (804) 225-2811. Thank you.

Sincerely,

K. C. Das Manager Superfund Program

KCD/dam

cc: William L. Woodfin, Jr.

Abraham Fordad

Steve A. Mihalko

Ann D. Troutman

Enc.

Che Virginian-Pilot

Serving southeastern Virginia and northeastern North Carolina

127th Year 1992, No. 1

Residents want to relocate out of contaminated area

By C.J. Clemmons Staff writer

PORTSMOUTH - Several angry residents of a neighborhood threatened by lead-contaminated soil demanded. Thursday night that the federal government relocate them to a safe area and pay for all. expenses.

"We want to be evacuated relocated and compensated," said Char ing detailed soil testing data colleclotte Scott, one of about 40 Washing tion and analysis and planning ton Park residents attending a "Our lives have been put on community meeting with U.S. Envi- hold," said Naomi Lovett, who lives ronmental Protection Agency

representatives.

EPA officials came to discuss cleanup efforts for an area on Green and 7th streets contaminated by the Abex Corp., a brass and bronze foundry that operated there from 1928 to 1978. But residents wanted

"You can't clean that stuff up." Scott said. "Move us out of here.

This is a wasteland."

Representatives from the Virginia Department of Waste Management Department of Waste Management, the city health department in the Atlanta-based Agency for This Substances and Disease Registry waste also on hand to discuss any potential health in the control of the tial health risks posed by the contamination.

It was the fourth meeting between EPA officials and Washington Park residents since early May to discuss removing lead-contaminated soil from the Southside area, which is home to 457 people. Soil found to be contaminated must be lug up, treated and then hauled to a landfill.

Experts have said it is not an emergency situation, and EPA officials say they're working as quickly as possible. The problem, however, was first discovered 11 years ago.

"Get us out of here and you can just take the whole site," said Ernest Hinton, who owns a duplex apartment building in the area.

Leanne Nurse, community relations representative from the EPA's Philadelphia office, said initial soil removal may begin in the next few days. But she explained that the cleamup is a lengthy process involv-

on Green Street, across from the old Abex Corp. "When people bring their children over, I'm terrified to let them outside to play.

The problems were left behind by the Abex foundry, which recycled railroad parts by melting them, a process that released lead particles into the air. The soil in adjacent lots was contaminated with lead deposits from discarded sand casts.

Steady exposure to lead through ingestion, inhalation or skin contact can cause neurological disorders. Long-term effects of lead contamination include speech impediments and learning disorders, kidney failure and brain damage.

The EPA has designated the area a Superfund site, which gives it priority as one of the nation's most bazardous waste dumps. Experts say it will probably take up to four years and \$16 million to nd the area of contamination.

In the meantime, said EPA toxicologist Reggie Harris, hand washing after outside activity can cut down on lead being ingested.

The city health department and begin offering free blood screenings to residents next month.

FAREWELL APPEARANCE





A reference to his last day as superintendent of Norfbrought a smile to Gene Carter at a School Board me

Schools chief end years in Norfol

NORFOLK — After nine years and more than 100 monthly School Board meetings, Superintendent Gene R. Carter bade farewell to his colleagues Thursday.

The board named Deputy Superintendent J. Frank Sellew as acting superintendent.

Carter officially leaves Wednesday to become executive director of the Association for Supervision and Curriculum Development, a professional educauon organization in Alexandria.

The board hired Associates, an exec firm based in Charl find Carter's replace will preside over the a new superintende but no time trame w

Sockwell & Ass been working on sea er major cibes as we

Two resigning boalso attended their : Ray H. Hinton Bruce.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT 11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23219 (804) 225-2667 TDD (804) 371-8737 May 21, 1992

Mr. Charles Riddick, Jr. 718 Henry Street Portsmouth, Virginia 23704

Dear Mr. Riddick.

Thank you for taking the time to send a letter regarding the Abex Superfund site from you and your neighbors. As we discussed yesterday afternoon by telephone, representatives of the Virginia Department of Waste Management and the U.S. Environmental Protection Agency will be at your home on Thursday, May 28, at 7:30 p.m. to talk with Madison Ward Civic League members about the short- and long-term cleanup plans for the Abex site.

Superfund issues like this are always complex. The Abex Superfund site is even more difficult than some other sites because of plans for the short-term removal action and the longer-term remedial cleanup of the site. We hope that our meeting next week will help to answer some of your questions, and clarify issues related to both technical action plans.

As we discussed, the U.S. Environmental Protection Agency and the Virginia Department of Waste Management will accept comments from concerned citizens like yourself and your neighbors past the current comment period deadline of May 28. At our meeting on May 28, you can tell us how much longer you feel you need to review information and submit your comments.

Thank you again for your interest. If you have questions about the Abex Superfund site before the meeting next Thursday, please feel free to call me at (804) 225-2903 or 225-2667. If you are unable to reach me, you may call Ann Troutman of my staff at (804) 225-3266. Thank you again for your comments. We look forward to seeing you on Thursday.

zery Sincerely,

Jamie Walters

Policy, Planning & Public Affairs

Virginia Department of Waste Management

cc:

Ann Troutman, VDWM Steve Mihalko, VDWM Kim Hummel, USEPA 3HW24 Leanne Nurse, USEPA 3EA21 Concerned Citizens Living Near the Abex Site standed on next page):

Abex Superfund Site/Page Two May 21, 1992 Continued:

Joyce Gotling, 1725 Effingham Street, Portsmouth, Virginia 23704

Louise D. Martin, 1701 Effingham Street

Arnez G. Riddick, 720 Henry Street

Martin V. Williams, 717 Henry Street

Clara Williams, 717 Henry Street

Sharon E. Nukols, 709 Henry Street

Carolyn Mitchell, 1724 Green Street

Lila Bailey, 715 Henry Street

Herbert C. Carter, 1800 Green Street

Eddie White, 700 Lincoln Street

Flora B. Clark, 706 Lincoln Street

Rose M. Clinton, 706 Lincoln Street

Carolyn E. Cotton, 1728 Green Street

Anthony Woodbright, 1801 Effingham Street

Rev. James C. Womack, 1810 Green Street

Monica M. Beamer, 728 & 730 Lincoln Street

Wilson Williams, 1705 Effingham Street

Mary L. Walker, 1807 Effingham Street

Tyrone Riddick, 1720 Green Street

Eugene Burks, Sr., 1807 Effingham Street



COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT 11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23219 (804) 225-2667 TDD (804) 371-8737

July 7, 1992

Ms. Charlotte Scott
5658 Craney Brook Lane #B
Pertsmouth, Virginia 23703

Dear Ms. Scott,

Virginia Department of Waste Management and the U.S. Environmental Protection Agency will be unable to provide an additional workshop prior to the close of the Public Comment Period on July 10, 1992. Upon completion of the Responsiveness Summary, which formally addresses the verbal and written comments received, a fact sheet summarizing citizen concerns will be sent to the mailing list.

VDWM and EPA officials feel ample opportunity for oral and written comments has been granted to interested residents. Attached you will find a chronology of activities provided during the comment period. As denoted on page 2, very few activities are required by Superfund law. However, the intent of the law, via the National Oil and Hazardous Substances Pollution Contingency Plan, or NCP, encourages proactive and regular involvement. The document provides for a 30 day extension when the lead agency is given a timely request. This request was made by residents and granted. The public comment period will conclude on July 10, 1992. The NCP further states that any further extensions of the Public Comment Period are within the discretion of the lead agency (VDWM). It has been decided that the comment period will not be extended for an additional 30 days because of the activities listed on page 2.

This does not mean that communications will cease. Your input and involvement are very important. I understand how frustrating and complex the Superfund process can be. We will make every effort to provide understandable information to the Abex Superfund Site community. Additional community relations activities will be planned for the near future.

Please contact Ms. Leanne Nurse at (215) 597-6920 with questions about Removal Action activities. Feel free to contact me at the address listed above or at (804) 225-2903 concerning Remedial long term activities.

Very Sincerely,

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Community Relations Specialist

ADT/

cc:

Harry Gregori K.C. Das Steve Mihalko Leanne Nurse Ron Davis

Leanne



COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT 11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23219 (804) 225-2667 TDD (804) 371-8737 June 11, 1992

Minister Rafiq Zaidi
Black Concerned Citizens
3106 Hull St.
Portsmouth, Virginia 23704

Dear Minister Zaidi,

It was a pleasure speaking with you this morning. In response to your letter received on June 10, 1992, I am forwarding several supplemental materials and information in response to your questions. A copy of your letter is attached.

The Potentially Responsible Party is Pneumo Abex. They funded the Remedial Investigation/ Peasibility study phase. Scientists and engineers from Virginia Department of Waste Management (VDWM) and the U.S. Environmental Protection Agency (EPA) took an in-depth look at the type and extent of contamination at the site and then considered all the technologies that could be used to clean up the site. VDWM serves as the lead agency for the long term activity. Currently, we are involved in a public comment period. Citizens can make comments on the Proposed Remedial Action Plan. This document recommends a preferred alternative for cleaning up the site and also discusses the other methods that were considered. A copy of that document along with the citizen advisory announcing the comment period extension are enclosed. After the comment period closes July 10, 1992, a final clean up decision will be made. Please refer to the Superfund fact sheet for a more detailed explanation of the Superfund activites that will take place after the decision.

In the coming weeks, a removal action will be conducted by the Environmental Protection Agency in your area. This activity addresses a shorter term risk. It is important to note that the conditions do not pose an immediate danger. If you would like more detailed information about the removal activities, please contact Ms. Leanne Nurse, EPA Community Relations Coordinator at (215) 597-6920.

The Risk Assessment was conducted by Cambridge Environmental. I have enclosed portions of the document that I thought would be helpful. Please note that this document has not been granted final approval by the agencies to date.

Locations and names of the facilities that treated soils would be deposited will be determined during the Remedial Design phase. Please contact Leanne Nurse in regard to this issue for the Removal Action activities.

Per your request, a copy of CERCLA as amended by SARA is also included.

I look forward to meeting with you next week inCarol Pratt's office at City Hall on Thursday or Friday at 4:00p.m. Ms. Pratt, Portsmouth Public Information Officer; Charlotte Scott, Washington Park Youth Council; Leanne Nurse, EPA Community Relations Coordinator and I will be present to discuss the Abex Superfund site and plans for a Washington Park Workshop. I will call to confirm the meeting date with you by Monday. June 15, 1992. If you have any further questions, please feel free to contact me at (804) 225-2903.

Very Sincerely,

Ann D. Troutman

Virginia Superfund Program
Community Relations Specialist

encl: June 1992 Citizen Advisory

Abex Proposed Remedial Action Plan
Superfund Remedial Program fact sheet
Remedial Design/Remedial Action fact sheet
Public Participation fact sheet

Public Participation fact sheet Baseline Risk Assessment

CERCLA

cc: file

Cheryl Cashman, VDWM
Steve Mihalko, VDWM
Leanne Nurse, EPA (3EA21)
Kim Hummel, EPA (3HW24)
Ron Davis, EPA (3HW24)
Carol Pratt, City of Portsmouth

The Honorable John Coyers, Congressman



COMMONWEALTH of VIRGINIA

DEPARTMENT OF WASTE MANAGEMENT 11th Floor, Monroe Building 101 N. 14th Street Richmond, VA 23219 (804) 225-2667 TDD (804) 371-8737

June 11, 1992

Ms. Charlotte A. Scott Chairwoman, Washington Park Youth Council 5658 Craney Brook Lane. #B Portsmouth, Virginia 23703

Dear Ms. Scott,

In response to your letter received on June 10, 1992, I am forwarding several supplemental materials and information in response to your questions. A copy of your letter is attached.

The Potentially Responsible Party is Pneumo Abex. They funded the Remedial Investigation/ Feasibility study phase. Scientists and engineers from Virginia Department of Waste Management (VDWM) and the U.S. Environmental Protection Agency (EPA) took an in-depth look at the type and extent of contamination at the site and then considered all the technologies that could be used to clean up the site. VDWM serves as the lead agency for the long term activity. Currently, we are involved in a public comment period. Citizens can make comments on the Proposed Remedial Action Plan. This document recommends a preferred alternative for cleaning up the site and also discusses the other methods that were considered. A copy of that document along with the citizen advisory announcing the comment period extension are enclosed. After the comment period closes July 10, 1992, a final clean up decision will be made. Please refer to the Superfund fact sheet for a more detailed explanation of the Superfund activites that will take place after the decision.

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next week at Carol Pratt's office at City Hall on Thursday or Friday at 4:00p.m. Ms. Pratt, Portsmouth Public Information Officer; Minister Zaidi, Black Concerned Citizens; Leanne Nurse, EPA Community Relations Coordinator and I will be present to discuss the Abex Superfund site and plans for a Washington Park Workshop. I will call to confirm the meeting date with you by Monday, June 15, 1992. If you have any further questions, please feel free to contact me at (804) 225-2903.

Very Sincerely,

Ann D. Troutman

Virginia Superfund Program Community Relations Specialist

encl: June 1992 Citizen Advisory

Abex Proposed Remedial Action Plan Superfund Remedial Program fact sheet Remedial Design/Remedial Action fact sheet

Public Participation fact sheet Baseline Risk Assessment

CERCLA

cc: file

Cheryl Cashman, VDWM
Steve Mihalko, VDWM
Leanne Nurse, EPA (3EA21)
Kim Hummel, EPA (3HW24)
Ron Davis, EPA (3HW24)
Carol Pratt, City of Portsmouth

The Honorable John Coyers, Congressman

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injeter Rafiq Zaidi, Fres Lock Concerned Citizens prime ath Branch 105 Full St. . .e> BODD-YES CYCH erts. atth.

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Community Relations Supervisor; Waste Menagement Vinginia Department of Jamie Walters,

Kim Hummel, EPA Project Officer) Fhiledolphia, Pa.

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cc: The Herocable John Conyers, Coderace when

715 Henry Street
Portsmouth, VA 23705
May 30, 1992

Ms. Leanne Nurse Community Relations Coordinator EPA Region III 841 Chestnut Building Philadelphia, PA 19107

Ms. Ann Troutman Community Relations Specialist Virginia Department of Waste Management 101 N. 14th Street 18thFloor Monroe Building Richmond, VA 23219

Dear Ms. Nurse and Ms. Troutman:

This letter is to officially notify you that my one and only desire for settlement in the Superfund Project is to be fully and adequately compensated for my property (it's value prior to induction into 'wasteland'), fully and adequately compensated for any possible health loss of mine and my children, duly compensated for relocation to an area of equal value and social, security and community standards, and compensated for stress and inconvenience.

I want out. My wish is to move from 715 Henry Street with all of its contaminations, clean-up projects, its threat to my health, mental condition and once happiness in what was a great place to spend my retiring years.

I wish to thank you for taking the time to come to our meeting Thursday night. It is apparent that you are sincere in your efforts to help. I personally do not feel that you were given the opportunity, respect and support required for you to accomplish your primary goal — to assure us the Removal Action, as well as, the Remedial Activities are in our best interest. Though truly no fault of yours, I left the meeting with no more security than I went in the meeting with.

I have strong feeling about the clean-up process:

- 1. The Removal Action nor the Remedial Activities, as outlined, is not a permanent solution for lead-free environment. I base my opinion on these facts:
- a. In the course of my thirty-six (36) years as resident, top-soil, four-feet-lamp in some areas, (bought

from other areas of the city) has been transported to cover my entire yard. Even so, my yard tested positive. So what is the difference with this plan? Alternative #7's proposal to excavate and backfill two-feet or as stated in the meeting, three (3) to four (4) feet, has the potential of lead poison that I am experiencing now. The lead seeps up into the good soil. I would understand your proposal if it included affixing cement, concrete or other like material to cap over the infested soil. But even this would not stop the spread of growth. (Grass does grow through cement.)

- b. "Stirring up" the infested soil does not "eliminate inhalation of dust". See PRAP goal #2.
- 2. My other concerns about the proposal:
- a. Abex's letter showed more concern for animal safety than for human. Provisions were proposed for pet shelters but no provisions to relocate the residents during this clean-up were mentioned.
- b. I'm concerned about any digging near my foundation and my crawl space, however, if there areas go untreated, I would still have the threat. As we have already experienced, our land is very unstabled. Any digging could easily affect our permanent structure.

I am a widow, 76-years-of age. You need to be aware that this discovery has caused great trauma in my life. I need the assurance that I will not suffer any more loss. My husband planned a comfortable, debt-free life style for me to enjoy my retiring years. To restore my security and mental stress, I need to know that I will be compensated to allow me to recover my losses as listed in the first statement.

I pray that you find it feasible to help me recover my losses. I will be deeply grateful.

Thank you.

Mrs. Lla M. Dail:

(Mrs.) Lila M. Bailey

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

Honorable John W. Warner United States Senator 490 World Trade Center Norfolk, Virginia 23510 JUL 27 1992

Dear Senator Warner:

This is in response to your letter of July 6, 1992, to Mr. Patrick H. Quinn, Office of Congressional Liaison, Environmental Protection Agency (EPA), on behalf of your constituent, Ms. Joyce Jordan Gatling of Portsmouth, Virginia, concerning the cleanup of the Abex Superfund Site.

On April 29, 1992, the Environmental Protection Agency (EPA) initiated a formal thirty-day public comment period on the Agency's Proposed Plan (enclosed) for cleanup of the Abex Site. Part of this cleanup focuses on removal of lead-contaminated soils in the residential areas adjacent to the former foundry facility. Ms. Gatling is one of the homeowners in the area where cleanup is planned.

The Proposed Plan discusses a total of seven alternative cleanup options that EPA and the Virginia Department of Waste Management (VDWM) are currently considering to address contamination at the site. The alternative identified as the preferred choice by EPA at the time the plan was issued requires excavation of lead-contaminated soils in the residential yards, stabilization of the excavated soils, and transportation off-site to a landfill. This alternative would also address contamination at the foundry facility itself.

EPA is aware that there are serious concerns about the cleanup strategy being proposed among the residents impacted by this Superfund site. We have met with the residents during a formal public meeting on May 7, 1992, and during a series of subsequent meetings in the community. At the request of local residents, EPA extended the public comment period on the Proposed Plan until July 10, 1992. The letter you received from Ms. Gatling was received by the Agency during this formal comment period.

In preparing the final Record of Decision (ROD) for the Abex Site, EPA is carefully considering all the comments received during the public comment period. EPA will formally respond to all comments, including those submitted by Ms. Gatling, in the ROD Responsiveness Summary. Since Ms. Gatling's concerns must be considered with all other comments received by EPA and VDWM, it is difficult for the Agency to provide you with a formal response to her comments at this time. We inticipate that this process

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will require several more weeks to complete because of the large number of comments received.

EPA will be pleased to send a copy of the ROD and Responsiveness Summary to you as soon as they are finalized. If you or someone from your office would like to discuss specific issues raised by Ms. Gatling, please feel free to contact this office.

Sincerely,

Edwin B. Erickson Regional Administrator

Enclosure

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VIRGINIA DEPARTMENT OF WASTE MANAGEMENT SUPERFUND PROGRAM

PROPOSED PLAN

Abex Corporation Portsmouth, Virginia

April 28, 1992

INTRODUCTION

In accordance with the terms of an Administrative Order on Consent between the Virginia Department of Waste Management (VDWM) and the Abex Corporation (now known as the Pneumo Abex Corporation), the Abex Corporation has completed a Remedial Investigation/Feasibility Study (RI/FS) of the Abex Corporation Superfund Site ("Site"), located in Portsmouth, Virginia. The Remedial Investigation (RI) characterizes the nature and extent of contamination associated with the Site, while the Feasiblity Study (FS) evaluates remedial alternatives for contamination of concern.

Based on the results of the RI/FS, VDWM and the U.S. Environmental Protection Agency (EPA) have identified a preferred alternative for remediating contaminated soils and structures which are known to be associated with the Site and constitute an unacceptable long-term human health risk (see Scope and Role of Remedial Action below). This part of the Site has been designated as Operable Unit One (OU-1). Under the preferred alternative for OU-1 (identified on page 10 as Alternative 7), contaminated soils would be excavated, treated onsite by a stabilization/solidification process, and disposed in an offsite landfill, while the former foundry facility would be decontaminated. This Proposed Plan summarizes the findings of the RI/FS and explains the basis of the preferred alternative for OU-1.

VDWM, the lead agency, and EPA, the support agency for the RI/FS project at the Site, are issuing this Proposed Plan to fulfill the requirements under Sections 113(k), 117(a) and 121(f) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. A subsequent plan shall address Operable Unit Two (OU-2), which will address additional media which may be contaminated by the Site.

PUBLIC PARTICIPATION INVITED

VDWM and EPA encourage the public and interested parties to review and comment on the preferred alternative, other alternatives considered in the Proposed Plan, and other documents comprising the Administrative Record for the Site. VDWM and EPA may modify the preferred proposed alternative or select another alternative presented in this Proposed Plan based on new information or public comments. The selected remedy will be documented in a Record of Decision, which shall be placed in an information repository for public review (see below).

The public ment period begins on April 29, 1992 and concludes on May 28, 195 The Administrative Record is available for public review in ...e information repository, which is located in the Reference Section of the Portsmouth Public Library - Main Branch, 601 Court Street, Portsmouth, Virginia (804-393-8501). Written comments must be postmarked no later than May 28, 1992, and submitted to one of the following VDWM representatives:

Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-2903

or

Stephen Mihalko
Remedial Project Manager
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-3263

VDWM and EPA will hold a public meeting on May 7, 1992 at 7:30 pm in the City Council Chambers, City Hall Building, Columbia and Waters Streets, Portsmouth, Virginia, to present a summary of the RI/FS reports and the proposed alternative, and to provide an opportunity for interested citizens to raise questions or comments.

SITE BACKGROUND

The Site is located in a residential area of the City of Portsmout. in Virginia. The Site includes a former foundry that made bearings for railroad cars from 1928 to 1978. The former foundry facility is currently located on land cwned by John Holland (hereafter referred to as the Holland Lot). The foundry disposed of waste sand laden with heavy metals (including lead) in a one acre area

(hereafter referred to as the Abex Lot) immediately north of the former foundry facility. (Figure 1 provides a map of Site-related features discussed in this Plan.) The foundry also released air emissions of fine particulates from a stack during its years of operation.

In 1986, the EPA identified high lead concentrations in the foundry waste within the Abex Lot and in soil of neighboring residential lots. Pursuant to a Consent Order signed with EPA in 1986, Abex excavated and removed contaminated soil at varying depths (6 to 12 inches) from certain residential areas around the Abex Lot, and paved/fenced the Abex Lot and the McCready Lot. All excavated areas were filled with clean soil and revegetated.

on October 10, 1989, VDWM, serving as the lead agency, entered into an Administrative Order on Consent with Abex, requiring Abex to conduct an RI/FS to fully assess any additional contamination associated with the Site and to identify remedial alternatives for Site-related contamination of concern.

FINDINGS OF REMEDIAL INVESTIGATION (RI)

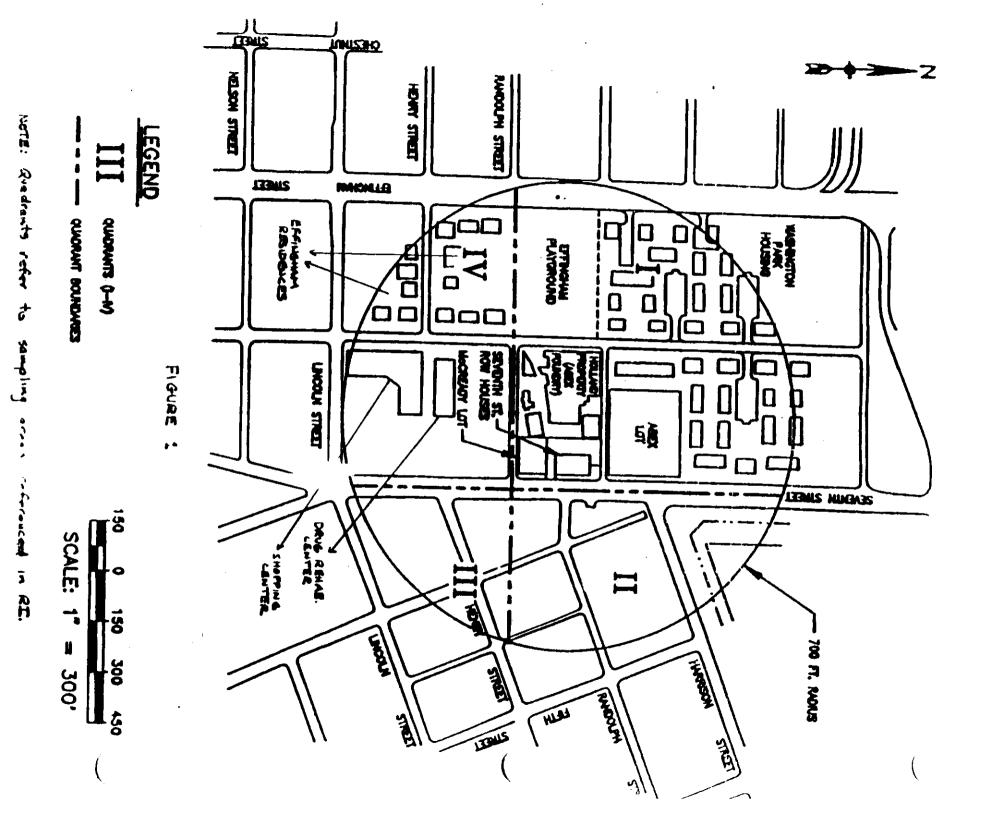
The RI found elevated levels of lead, copper, antimony, tin and zinc associated with the Site in the following areas: the former foundry (now part of the Holland Property), under the asphalt-capped Abex and McCready Lots, and soils of residential and non-residential areas. The primary contaminant of concern is lead (see Risk Assessment below).

Soil ("floor dirt") and dust throughout the interior of the foundry building contain lead levels of up to 100,000 mg/kg. Outdoor soils on the Holland Property contain lead levels of up to 58,000 mg/kg within the top two feet.

Site-related waste sand is buried in the Abex Lot to a depth of at least four feet, with lead concentrations ranging up to 24,000 mg/kg. Lead levels of up to 4,750 mg/kg occur within the top two feet of soil under asphalt within the McCready Lot.

Surrounding areas containing lead-contaminated soil associated with the Site include the Drug Rehabilitation Center/Shopping Center area, the Washington Park public housing area, Effingham Playground, private residential properties in an area hereafter referred to as the Effingham Residences, private residential properties on Seventh Street and Vacant Lots on the east side of Seventh Street. (See Figure 1 for the locations of these areas.)

While a previous Removal Action (see Scope and Role of Remedial Action) removed the majority of lead-contaminated surface soils from Washington Park, isolated surface soils within this area still exceed 500 mg/kg lead. In addition, areas within Washington Park



contain lead levels of up to 46,500 mg/kg in soils between 1 and 4 feet in depth.

Surface soils within the Effingham Residences have lead concentrations of up to 7,890 mg/kg, while soils at depths of 1 to 4 feet have lead levels of up to 8,000 mg/kg in certain areas. In addition to containing some surface soils with lead exceeding 500 mg/kg lead, soils at one to four feet within the Effingham Playground contain lead levels of up to (or over) 5,000 mg/kg.

Soils within lots associated with the Seventh Street Row Homes contain lead at levels up to 7,000 mg/kg at 0 to 2 feet in depth. In addition, attics of two Seventh Street homes contain dust with lead levels of up to 7,030 mg/kg.

Site-related lead has been detected in surface soils of the Vacant Lots west of Seventh Street at levels up to 1,200 mg/kg, while subsurface soils in this area contain lead of up to 6,000 mg/kg. Surface soils within the Drug Rehabiliation Center/Shopping Center area contain lead at levels up to 9,300 mg/kg.

Sampling and analysis of groundwater within the surface aquifer immediately downgradient of the Abex Lot has detected lead levels of 30 ug/l.

RISK ASSESSMENT

A Risk Assessment performed as part of RI activity has determined that lead is the primary contaminant of concern at the Site. Residents (or workers) may be exposed to the lead found in contaminated soils and dust by ingestion or inhalation.

Currently, the EPA assesses risk from exposure to lead contaminated soils and dust through a Lead Uptake Biokinetic Model. The model simulates uptake, distribution, and elimination of lead from the body. The model assumes potential sources of lead exposure are water, dust, soil, and food. Since groundwater and surface water are not used for drinking water purposes in this case, potential exposure sources of lead to residents and/or workers in this case are inhalation of dust, incidental ingestion of soil (particularly by children) and consumption of food.

The results of the model for this site conclude that children are exposed to an unacceptable health risk when lead concentrations in surface soil or dust exceed 500 mg/kg. The primary exposure pathways of concern in this case are incidental ingestion of soil and inhalation of dust. The Risk Assessment has concluded that there is no significant health risk from consuming fruits or vegetables grown in soil in residential (or potential residential) areas on and around the Site, provided that such vegetables and/or fruits are washed to remove surface soil or dust.

The surface aquifer underlying the Site is not currently used, but may be hydraulically connected to underlying aquifers which may become a source of drinking water. Monitoring of the surface aquifer immediately downgradient of the Abex Lot indicates groundwater at this location exceeds the Cleanup Level for lead in groundwater of 15 ug/l (see EPA Memorandum dated June 21, 1991 in Adminstrative Record).

Actual or threatened releases from the Site, if not addressed through a remedial action, may present a current or potential threat to public health, welfare or the environment.

SCOPE AND ROLE OF REMEDIAL ACTION

The EPA has determined that soils within current residential areas which exceed 500 mg/kg lead within the top foot of sc 1 present a short-term threat to human health. As a result, the PA issued a Unilateral Administrative Order to the Abex Corp. re liring it to remove such soil from the Site. The EPA shall perform the work described under the UAO should Abex decline to do so.

Remedial alternatives for addressing remaining, long-term, unacceptable, Site-related health risks are identified in thi-Proposed Plan.

Based on the findings of the Remedial Investigation and the Risk Assessment, the primary objectives of the Remedial Action addressing long-term risks are as follows:

- Eliminate incidental ingestion of soil which exceeds 500 mg/kg of lead
- . Eliminate inhalation of dust which exceeds 500 mg/kg lead
- Prevent releases of lead which result in greater than 15 ug/ lead in potential drinking water supplies

In addition, as provided by the National Contigency Plan, all soil associated with the Site which constitutes a principal threat shall be treated wherever practicable. (See National Contingency Plan, Section 300.430(a)(1)(iii).) In this case, the EPA considers any soil with lead at concentrations over one order of magnitude higher than 500 mg/kg to be a principal threat. As a result, all soil or waste with lead concentrations over 5000 mg/kg should be treated wherever practicable.

SUMMARY OF ALTERNATIVES

In the FS for the Site, a screening of engineering technologie applicable to remediating the contaminated media was completed.

The technologies were screened according to their effectiveness and implementability. Those technologies determined to be most applicable were then developed into remedial alternatives. The following remedial alternatives have been identified based on the evaluation of alternatives in the FS Report. In all cases, the alternatives are for work to be performed in addition to that already planned under the Removal Action.

Alternative 1: No Action

Alternative 2: Surface Soil Excavation, Offsite Treatment/Disposal, Capping,

Institutional Controls

Alternative 3: Surface and Subsurface Soil Excavation,

Offsite Treatment/Disposal

Alternative 4: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal

Alternative 5: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal,

Capping, Institutional Controls

Alternative 6: Surface and Subsurface Soil Excavation,

Onsite/In Situ Treatment, Offsite

Disposal, Capping, Institutional Controls

Alternative 7: Surface and Limited Subsurface Soil

Excavation, Onsite Treatment, Offsite

Disposal

COMMON ELEMENTS OF ALL ALTERNATIVES

Except for the No-Action Alternative, all of the remedial alternatives include certain common elements.

In each case, the former foundry facility structure, interior and equipment will be decontaminated as necessary. Equipment maintained within the facility by the current property owner may have to be decontaminated or temporarily removed from the facility prior performing decontamination. Decontamination shall consist of soil and dust removal by vacuum, pressure water wash, or similar means.

Solid residuals generated by this process shall be handled in the same manner as contaminated soils. Any contaminated soil at depth within the building interior shall be addressed in a manner consistent with exterior soils on the Holland Property.

With each alternative, soil excavation and offsite soil disposal is necessary. Testing shall be conducted to determine whether an excavated soil is a characteristic hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Soil which is determined to be a RCRA hazardous waste shall be treated prior to land disposal. Soil which is not a RCRA hazardous waste may still require treatment prior to disposal in a Solid Waste Management Facility within Virginia or another state.

In each case, conventional earth moving equipment would be used to excavate and load contaminated soil. All excavated areas would be backfilled with clean fill and revegeated.

Discharge of decontamination water and any other water generated during remedial activities will meet Virginia Pollution Discharge Elimination System (VPDES) requirements developed pursuant to the Federal Clean Water Act and Virginia State Water Control Law.

Any air emissions generated during remedial activities shall meet National Emission Standards for Hazardous Air Pollutants (NESHAPs) developed under the Federal Clean Air Act and the Virgin! Regulations for the Control and Abatement of Air Pollutic (VRCAAP). Air shall be monitored to protect the health of onsite workers and the community. Sampling of the interior of homes in the vicinity of excavation shall be performed to assure there is no significant release of dust into homes during remedial activity.

In each case where treatment is included, the treatment shall be stabilization and/or solidification.

In all cases, transportation, storage, treatment and disposal of soil and other-contaminated media will be in compliance with Virginia Hazardous Weste Management Regulations (VHWHR) and RCRA.

The unique aspects and estimated cost of each alternative is summarized below. Present Worth includes an estimate of operation and maintenance (O & M) costs over a thirty year period. For each alternative, the cost estimate is for the work to be performed in addition to that performed under the Removal Action.

Alternative 1: No Action

Pursuant to the National Contingency Plan_(NCP), the "no action" alternative is considered to provide a base line for comparison to other alternatives. Under this alternative, no action beyond the Removal Action shall be performed. Soils with lead level exceeding 500 mg/kg within the top foot would remain at the Drug Rehabilitation/Shopping Center Area and Vacant Lots. Soils identified as a principal threat (lead levels greater than 5000 mg/kg) would remain in the Abex Lot, Holland Property, Washington

Park and Effingham Residence area. In addition, soils with lead greater than 500 mg/kg would remain at 12 to 24" within areas where gardening (or similar intrusive activities) and redevelopment may occur. Certain areas of lead contamination, including the Abex and McCready lots, and areas of the Holland Property, are currently capped and fenced, minimizing exposure to underlying lead at this time. However, these caps would not be permanently maintained under this alternative.

Alternative 2: Surface Soil Excavation, Offsite Treatment/ Disposal, Capping, Institutional Controls

Under this alternative, remaining Site-related soils exceeding 500 mg/kg lead within the top one foot (which are not currently capped) would be excavated. Areas of excavation would include the Drug Rehabilitation/Shopping Center and Vacant Lots. Existing caps on the Abex Lot, McCready Lot and the Holland Property would be permanently maintained under this alternative. To control exposure to the capped soils (which constitute a principal threat) over the long-term, institutional land-use controls (e.g. deed restrictions) would be implemented. In addition, a groundwater monitoring program would be implemented. As noted under Common Elements, this and all remaining alternatives include foundry facility decontamination. A CERCLA five-year review would be required under this alternative. This alternative is designated as Alternative II, Case 1, in the FS.

Capital Cost: \$ 4,643,250

O & M Cost: \$ At least \$23,500

Present Worth: \$ 4,666,750 Time to Construct: 12 weeks

Alternative 3: Surface and Subsurface Soil Excavation, Offsite Treatment/Disposal

All known Site-related soil exceeding 500 mg/kg lead would be excavated and treated/disposed offsite under this alternative. Extensive surface and subsurface soil excavation would occur within all areas of concern identified under Findings of Remedial Investigation. Excavation would include soils currently capped with asphalt or cement. The former foundry facility would be decontaminated. This alternative is designated as Alternative II, Case 2, in the FS.

Capital Cost: \$ 37,672,820 O & M Cost: none Present Worth: \$ 37,672,820 Time to Construct: 57 weeks

Alternative 4: Surface and Subsurface Soil Axcavation, Onsite Treatment, Offsite Disposal

As under Alternative 3, all known Site-related soil exceeding an 500 mg/kg lead would be excavated.

Soil characterized as non-hazardous could be segregated and transported to a non-hazardous waste landfill. Soil characterized as hazardous would treated onsite by mixing with reagents in a soil treatment system. The system would create a final product that immobilizes metals and meets RCRA Land Disposal Restrictions for lead. The stabilized product could be transported to a non-hazardous waste landfill for disposal. Prior to excavation of contaminated soil on the Abex and McCready Lots and the Holland property, existing asphalt and concrete would be removed and could be disposed as construction and demolition debris. The former foundry facility would be decontaminated. This alternative is identified as Alternative III, Case 2, in the FS.

Capital Cost: \$ 29,734,820 O & M Cost: none Present Worth: \$ 29,734,820 Time to Construct: 55 weeks

Alternative 5: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, all Site-related soil exceeding 500 mg/kg lead would be excavated, with the exception of the Holland, Abex and McCready ots, which would be permanently capped with asphalt Institutional land-use controls and an operation and maintenance program would be implemented to control exposure to capped soils which constitute a principal threat. A groundwater monitoring program would also be implemented. This alternative also includes decontamination of the foundry facility.

All excavated soils would be addressed as described under Alternative 4. A CERCLA five-year review would be required under this alternative. This alternative is identified as Alternative V, Case 2, in the FS.

Capital Cost: \$ 21,852,250

O & M Cost: At least \$ 23,500

Present Worth: \$ 21,875,750 Time to Construct: 44 weeks

Alternative 6: Surface and Subsurface Soil Excavation, Onsite and In Situ Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, all Site-related soil above 500 mg/kg lead within the Abex, McCready and Holland Lots would be treated in situ (in place) to immobilize the lead of concern. All other Site-related soil exceeding 500 mg/kg lead would be excavated and treated onsite as described under Alternative 4.

The in situ treatment process is described in detail in the FS. Generally, this process utilizes augers and mixing paddles to inject and mix stabilizing agents into subsurface soils. Upon completion of this process, lead within the soil of concern is expected to be stabilized/solidified. Prior to the in situ treatment, existing asphalt and concrete on the Abex Lot, McCready Lot and Holland Property would be removed and could be disposed as construction and demolition debris. After the in situ treatment is complete, asphalt caps would be permanently placed and maintained on these areas. Operation and maintenence, institutional land-use controls and groundwater monitoring would be necessary for areas that have been treated in situ and capped. The former foundry facility would be decontaminated. A CERCLA five-year review would be required. This alternative is identified as Alternative VII, Case 2, in the FS.

Capital Cost: \$ 23,432,250

O & M Cost: At least \$ 23,500

Present Worth: \$ 23,455,750 Time to Construct: 45 weeks

Alternative 7: Surface and Limited Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

Under this alternative, all Site-related soils exceeding 500 mg/kg lead at 0 to 24 inches would be excavated. In addition, all Site-related soils exceeding 5000 mg/kg and constituting a principal threat would be excavated.

All excavated soils would be addressed as described under Alternative 4. The former foundry facility would be decontaminated. A CERCLA five-year review would be required under this alternative. Documentation of the estimated cost of this remedy appears in the Administrative Record.

Capital Cost: \$ 16,234,850
Annual Cost: none
Present Worth: \$ 16,234,850
Time to Construct: 40 weeks

EVALUATION OF ALTERNATIVES

This section compares the alternatives listed above in accordance with the nine criteria required by the NCP for the evaluation of remedial alternatives. (Please see the attached glossary.)

Overall Protection of Human Health and the Environment

Lead levels in the surface soil (0-12") at the Site exceed the health-based level of 500 mg/kg. For this reason alone, Alternative 1 (No Action) would not be protective of human health and therefore shall not be considered further as a remedia alternative.

Alternative 2 provides a remedy for existing surface soils exceeding 500 mg/kg lead. However, Alternative 2 does not provide a remedy for any soil with greater than 500 mg/kg lead below one foot in depth. Of concern in this regard are (1) soils which exceed 5000 mg/kg lead and present a principal threat, thu requiring treatment per the NCP, (2) soils which exceed 500 mg/k below 12" in depth which will likely be exposed to the surface due to gardening or similar intrusive activities and (3) soils below 12" which will likely reach the surface due to redevelopment or similar activity. In addition, this alternative does not remove or treat soils in the Abex Lot which are the source of unacceptable lead levels in groundwater.

Alternatives 3 and 4 would remove all soils with lead exceeding 500 mg/kg and thus be protective of direct exposure to this metal, as well as the underlying aquifer with regard to sad releases.

Alternative 5 would remove soils exceeding 50c 3/kg from the Site with the exception of those within the Hollan. Abex and McCready Lots, which would be permanantly capped with asphalt. Since the Holland and Abex Lots both contain lead at levels exceeding 5000 mg/kg, Alternative 5 would not remediate a principal threat through treatment. Alternative 5 also may not be protective of the aquifer of concern because lead-contaminated soil in the Abex Lot would remain in place.

Alternative 6 would remove all soils exceeding 500 mg/kg from the Site, with exception of soils within the Abex, Holland and McCready Lots, which would be treated in situ. Provided the in situ treatment effectively immobilizes the id, Alternative 5 is likely to be fully protective with regard to read.

Alternative 7 would effectively eliminate all unacceptable health risk at the Site. This alternative would: (1) excavate all soil at 0-24" with lead exceeding 500 mg/kg, eliminating potential for

unacceptable exposure due to gardening, redevelopment or similar intrusive activities, (2) remove and treat all soils which exceed 5000 mg/kg and thus present a principal threat per the NCP and (3) excavate all soil exceeding 5000 mg/kg within the Abex Lot, thus removing the source of lead contamination in groundwater.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARS)

Under Alternatives 2 and 5, soils exceeding 5000 mg/kg lead within the Abex Lot will be capped rather than removed or treated in place. Since these soils appear to be responsible for elevated levels of lead in groundwater, these alternatives may not be consistent with the relevant and appropriate, chemical-specific requirement that lead in a potable aquifer should not exceed 15 ug/l lead.

All other alternatives are expected to be in compliance with existing ARARs.

Long-term Effectiveness and Permanence

For reasons cited above under Overall Protection of Human Health and the Environment, Alternative 2 is not a protective remedy. While more protective than Alternative 2, Alternative 5 does not treat soils that constitute a principal threat.

Alternatives 3 and 4 are equally protective. Both of these alternatives would be effective over the long term and provide a permanent remedy.

Alternative 6, which includes in situ treatment of the Abex, Holland and McCready Lots, is expected to be protective in the manner of Alternatives 3 and 4, provided the in situ treatment successfully renders the soil of concern a nonhazardous waste (per RCRA).

Alternative 7 is expected to be similar in permanence and long-term effectiveness to Alternatives 3 and 4. While some soil with elevated lead levels would remain in place at depths over 2 feet under this alternative, soil movement during any long-term redevelopment activity is not expected to result in an unacceptable health risk. In addition, these soils do not constitute a principal threat.

Reduction of Toxicity, Mobility, or Volume Through Treatment

In the case of Alternatives 2 and 5, the principal threat at the Site would not be remediated through treatment.

Alternative 6 remediates a principal threat through in situ treatment. While this treatment may be effective in reducing the mobility of lead in the soil of concern, this cannot be confirmed at this time.

Alternatives 3, 4 and 7 all reduce inherent hazards posed by principal threats at the Site by the use of the proven treatment technology of stabilization/solidification. While Alternatives 3 and 4 treat more soil than Alternative 7, the additional soil of concern does not constitute a principal threat.

Short-term Effectiveness

Possible short-term effects of all of the "action" alternatives include exposure to dust emissions and erosion of soil. Dust generation and erosion can be mitigated through water spraying and the implementation of a storm-ater management plan, respectively.

A Health and Safety Plan, which includes sampling and monitoring shall be developed and implemented under all of the activalternatives to assure protection of both local residents and workers.

Implementability

Alternative 2 is the most implementable due to the minimal work to be performed.

Alternatives 2, 5, and 6 all include maintenance of caps and institutional controls. Difficulties are likely to be encountered in the implementation of land-use controls and a permanent cap maintenance program. Groundwater monitoring would also be required under each alternative.

Alternatives 3, 4, 5 and 6 would include the most soil excavation (or remedial activity) within residential areas, and as a result, the most significant disruption of the daily routine of residents. To fully implement these alternatives, some relocation of residents may be necessary. While temporary relocation may be necessary under Alternative 7, this alternative would reduce community disruption by minimizing the quantity of soil excavation, while still being protective of human health.

In the case of Alternatives 4 and 7, implementation of onsitive attention will require extensive planning and construction activities. In addition, pilot scale studies will be required to help design the system. The implementation of these alternatives will require significant additional activity onsite and will remore time-consuming Alternative 1, where treatment is performed an existing, RCRA- permitted offsite facility.

Alternative 6 includes in situ treatment of the Abex Lot and the Holland Lot, as well as treatment of excavated soils in an additional ensite treatment unit. The use of two separate ensite treatment units may further increase the time necessary to complete the remediation. Extensive pilot-scale treatment studies will be necessary to confirm the effectiveness of the in situ treatment system. In addition, significant adminstrative activity will likely be required to obtain approval from the Virginia Department of Waste Management to fully implement in situ treatment as a permanent remedy. As a result of these factors, this alternative will likely take the longest to implement.

Cost

Alternative 2 has the lowest capital cost. However, long-term cap maintenance and groundwater monitoring costs would be incurred. The estimated present worth of this alternative is \$ 4,643,250.

Alternative 3 is the most costly alternative with an estimated present worth of \$ 37,672,820, while the estimated present worth of Alternative 4 is \$ 29,734,820. There are no annual operation and maintenance costs associated with either alternative.

Alternative 5 and 6 are relatively equal in estimated present worth at \$ 21,875,250 and \$ 23,455,750 respectively. In the case both alternatives, operation and mainatenance costs would be incurred.

The estimated present worth of Alternative 7 is \$ 16,234,000. No annual costs are anticipated under this alternative.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated at the end of the public comment period and will be described in the responsiveness summary in the ROD.

SUMMARY OF THE PREFERRED ALTERNATIVE

Based on an evaluation of the alternatives, VDWM and EPA have identified Alternative 7 - Surface and Limited Subsurface Soil Excavation, Onsite Treatment and Offsite Disposal as the preferred alternative. Based on current information, this alternative appears to provide the best balance of tradeoffs among the alternatives with respect to the evaluation criteria.

Alternative 2 was eliminated because it did not provide treatment of soils which constitute a principal threat per the NCP and would not be protective where gardening (or similar activities) or redevelopment may occur. Alternative 5 was also eliminated due to

its failure to treat a principal threat.

Alternative 6 was eliminated due to potential implementability problems with in situ treatment and/or the combination of in situ and onsite treatment.

Alternatives 3 and 4, while fully protective, both involve extensive excavation within residential areas. While some temporary relocation may also be needed under Alternative 7, a reduction in the extent of subsurface excavation under Alternative 7 should minimize community disruption to the extent feasible and thus reduce implementability problems. In addition, Alternative 7 is expected to achieve a risk reduction similar to that under Alternatives 3 and 4, but at a significantly lower cost. A CERCLA five-year review will help assure the protectiveness of Alternative 7.

Based on information available at this time, the V and the EPA believe the preferred alternative would be prote ve of humanealth and the environment, would comply with ARARS, would be confective and would use permanent solutions and alternative treatment technologies to the maximum extent practicable.

GLOSSARY

OVERALL PROTECTION OF HUMAN HEALTH AND ENVIRONMENT addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

COMPLIANCE WITH ARARS addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes and/or provides grounds for invoking a waiver.

LONG-TERM EFFECTIVENESS AND PERMANENCE refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met.

REDUCTION OF TOXICITY, MOSILITY, OR VOLUME through treatment is the anticipated performance of the treatment technologies that may be employed in a remedy.

SHORT-TERM EFFECTIVENESS refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

IMPLEMENTABILITY is the technical and administrative feasibility of a remedy, including the availability of meterials and services needed to implement the chosen solution.

COST includes capital and operation and maintenance costs. Present-worths are also calculated.

STATE ACCEPTANCE indicates whether, based on its review of the FFS and Proposed Plan, the State concurs with, opposes, or has no comment on the preferred alternative.

COMMUNITY ACCEPTANCE will be assessed in the Record of Decision following a review of the public comments received on the FFS report and the Proposed Plan.

RESOURCE CONSERVATION AND RECOVERY ACT - A Federal statute which regulates the actival generation, transport, treatment, storage, and disposal of hazardous wastes.

RECORD OF DECISION - A document which selects a remedial alternative for a Superfund National Priority List site.

NATIONAL PRIORITY LIST - A list of uncontrol echazardous waste sites which are eligible for Federa funding under CERCLA (or Superfund) to investigation and remedial activities.

CERCLA • (Comprehensive Environmental Response Compensation and Liability Act) A Federal statuments provides a mechanism for remediation uncontrolled hazardous waste sites.

333

JOHN WARNER

COMMITTEES:

ARMED SERVICES
SELECT COMMITTEE ON INTELLIGENCE
ENVIRONMENT AND PUBLIC WORKS
RULES AND ADMINISTRATION

United States Senate

225 RUSSELL SENATE OFFICE BUILDING WASHINGTON, OC 20510-4801 (202) 224-2023

CONSTITUENT SERVICE OFFICES:

490 WORLD TRADE CENTER NORFOLK, VA 23510-1824 (904) 441-3079 MAIN STREET CENTRE 600 MAIN STREET RICHMOND, VA 20219-3503 (804) 771-2519

235 FEDERAL BUILDING 180 WCST MAIN STREET ABINGDON, VA 24210-6887 (703) 628-8188

DOMINION BANK BUILDING 213 S. LEFFERSON ST. SUITE 1003 ROANOKE, VA. 24011-1714 (703) 382-4676

July 6, 1992

Mr. Patrick H. Quinn Office of Congressional Affairs Environmental Protection Agency 401 M Street, SW Washington, D. C. 20460

Dear Mr. Quinn:

Your consideration of the attached correspondence from Ms. Joyce Gatling concerning an environmental clean up of her property will be appreciated. Please return your reply, in duplicate form, to the following address:

Senator John W. Warner 490 World Trade Center Norfolk, Virginia 23510 ATTN: Loretta H. Tate

Thank you for your time and courtesy.

With kind regards, I am

Sincerely,

John Warner

JW/lt

1725 Effingham Street Portsmouth, Virginia 23704 June 28, 1992

The Monorable John Marner United States Senate 421 Pussel Office Building Washington, D.C. 20510

Dear Honorable John Varner,

I'y very existence depends upon getting assistance from you.

I am a resident in the Abex Superfund site. My yard has been contaminated by lead from the Abex Corp. (a brass and bronze foundry that operated from 1928 to 1978). The problem was discovered eleven years ago. I have been living here for thirteen years. I learned of the high lead level in May of this year.!

I feel as though a cover-up has taken place. I really would like to have your help. Would you please help me in getting my requests made known to the proper authorities?

I am asking the U.S. Environmental Protection Agency to please consider the Collowing requests.

- 1. Remove my family and I during the clean up. (Our hame is not air tight and lead will come in during the clear up).
- 2. Remove all soil from my entire ward at least twelve inches or more.
- 3. Remove all contaminated soil from order my house. (Without causing structure damage. I improve will not cover any damage causes by the war.).
- 4. Replace all flowers, trees I way in my yard.

- 5. Give me a written quarantee that the lead in my yard will be at a safe level once the removal has taken place.
- 6. Test the inside of my house before and after the clean up to make sure the lead level is safe for humans.
- 7. Give me a unitten quarantee that my property is in better condition and not in worse condition because of the removal.
- 8. Test my daughter and myself for lead poison, and provide for any needed treatment.
- Treat the contaminated soil offsite and not in my neighborhood as planned.
- 10. Guarantee in writing that my property value will not decrease because of the removal action.

I am very concerned about the mental and physical health of my daughter (thirteen years old) and myself. I was expecting my daughter will I purchased this home. She has been playing in the yard since she was born! I have not been given any guarantees that the problem can be completely corrected without causing my property to decrease in value.

It would be infair for me to continue to live here if all of the requests can not be met. In that case, I should be monetarily compensated so that I will be able to move to a safer home. One my daughter can safely play in, and I can safely plant flower and vegetable gardens.

 709 Henry St Ponds. Va. 23704

To Ms. Rivs

We've been living here since December 1979, My daughters were Tyears of age and When we brought this home. Now my daughtern are 20213 years of age; in my backyard in a small area and on the

side of my house.

Fine and has a three year old and a 2 month old. The three year old and a 2 month the time. They all play int, if the dirt in the trong side and back yard making mud pies and eating list.

Front, side and back yard making mud pies and eating list.

Final news never advice of the lead continued in the continued of the lead continued the continued the lead continued the contin

tamination in the crea mult, to wasn't even mentioned in my deel. I was only aluse of a low crea that would flood:

these quess out here with a government ochide doing a little digging in the yards,

A couple months later I received information in the mail. Also people came to my neuse from EPA speaking on lead in soil.

Also I find out later the city was aware of the public he residents in the area with the lead in the soil was the last to find out. Signs weren't even putout. I did receive a letter to get the children tested at our area Public Health Center but it was n't was the specific test which is the blood lead test.

Speaking with the people from EPA DIJA and Miles wasn't sutitationly. It was stated they couldn't guarantee lead nee sol according the safe evel or whether all this digging up our property won't disturb the foundation.

of the mental stress int has started forming beings broughtout would be an alternative browns My only concern is Dur Aealth and Horne.

had so far the rive learn that I fit most the catorgories according to the toxocolgists.

I have a 2 month old, 3, ear old and now 13 years old that was here every since she was 9 months olds

My house where he has
excess when he playing and huling
from the Kids

3) I had find full pregancies when I was married.

4. I used to grow different vegjabler indeat them right and of the ground sometimes

5) Also according to toxocoligists it not very serious but studies from different reading sources have proven different and USHA.

Tim not referring to the level of L-E-AD but the kevel of TRAWMA MENTAL STRESS and just plain (eVORRY).

STRESS and just plain (eVORRY).

Thope, trust and DRAY in doing so you read the L-E-V-EL, 1 of L-E-AD 1 NENTHL

1/5. Janverdy

1725 Effingham Street
Portsmouth, Virginia 23704
June 28, 1992

Prs. Kim Hummel

ETA Project Officer

841 (hestrut Building

Philadelphia, PA 18107

Dear Mrs. Kim Hummel,

I'y very existence depends upon getting assistance from you.

I am a resident in the Abex Superfund site. I'y yard has been contaminated by lead from the Abex (orp. (a brass and bronze foundry that operated from 1928 to 1978). The problem was discovered eleven years ago. I have been living here for thirteen years. I learned of the high lead level in May of this year.!

I feel as though a cover-up has taken place. I really would like to have your help. Would you please help me in getting my requests made known to the proper authorities?

I am asking the U.S. Environmental Protection Agency to please consider the following requests.

- 1. Remove my family and I during the clean up. (Our home is not air tight and lead will come in during the clear up).
- 2. Remove all soil from my entire yard at least twelve inches or more.
- 3. Remove all contaminated soil from under my house. (Without causing structure damage. "; insurance will not cover any demage causes by the remove.)
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r co Gordan Gatling.

It is anticipated to take four to five days to excavate and restore the affected areas in Washington Park, and an additional four to five days to complete the process in Effingham Playground.

If you have any questions you may contact me or Mr. Kevin Greener (GEO Engineering On-Site Project Coordinator) at (201)361-3600 or Mr. Steve Kline (MAECORP Project Manager) at (800)372-7745.

We thank you in advance for your cooperation, and apologize for any inconvenience that this may cause you and your family.

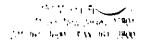
Sincerely,

GEO ENGINEERING. INC.

William W. Dunnell IV
Project Coordinator

WWID/avm
cc T. Stilman, USEPA
S. Kline, MAECORP





June 23, 1992

Residents of Washington Park Housing Portsmouth, VA 23704

SUBJ: Removal of Lead-Contaminated Soil

Dear Resident:

Within the next two weeks, MAECORP, on behalf of Pneumo-Abex Corporation, will begin a limited excavation of lead-contaminated soil in small portions of the Washington Park Housing Project and Effingham Playground. This notice is to inform you of what activities will be occurring over the next few weeks.

First, a representative of MAECORP will be photographing the area to record landscape and structural features for restoration purposes. A survey crew will also be brought in to identify property boundaries and sampling locations. In addition, soil samples may be collected from around your residence and from Effingham Playground. The sample points will be marked with stakes and we ask that these be left alone until the excavation begins. Next, the location of underground utilities such as phone, water, sewer and cable television will be marked (with stakes of spray paint) to prevent these services from being interrupted during excavation activities.

Potentially contaminated soil will be removed from each identified area to a depth of twelve inches. Once the soil is removed, new top soil will be brought in and sod will be applied to the area. Landscape features, trees and shrubs that were removed or damaged during excavation will be restored, to the extent possible, to pre-excavation conditions.

MAECORP will make every effort to keep dust to a minimum during all excavation activities. However, to assure that no dust enters your residence, you should keep your windows and doors closed, to the extent possible, while soil excavation is occurring. Additionally, you should refrain from hanging out any laundry for the duration of the excavation. Every effort should be made to keep children and pets away from heavy machinery and areas being excavated. The excavation day will begin at 7:00 a.m. and end at 0:00 p.m. We will try to keep the noise down to a minimum, especially in the early morning hours.

EX #-3

It is anticipated to take four to five days to excavate and restore the attected areas in Washington Park, and an additional four to five days to complete the process in Effingham Playground.

If you have any questions you may contact me or Mr. Kevin Greener (OEO Engineering On-Site Project Coordinator) at (201)361-3600 or Mr. Steve Kline (MAECORP Project Manager) at (800)372-7745.

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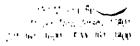
Sincerely,

GEO ENGINEERING, INC.

William W. Dunnell IV Project Coordinator

WWID/avm cc T. Stilman, USEPA S. Kline, MARCORP





June 23, 1992

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Dear Resident:

Within the next two weeks, MAECORP, on behalf of Pneumo-Abex Corporation, will begin a limited excavation of lead-contaminated soil in small portions of the Washington Park Housing Project and Effingham Playground. This notice is to inform you of what activities will be occurring over the next few weeks.

First, a representative of MAECORP will be photographing the area to record landscape and structural features for restoration purposes. A survey crew will also be brought in to identify property boundaries and sampling locations. In addition, soil samples may be collected from around your residence and from Effingham Playground. The sample points will be marked with stakes and we ask that these be left alone until the excavation begins. Next, the location of underground utilities such as phone, water, sewer and cable television will be marked (with stakes of spray paint) to prevent these services from being interrupted during excavation activities.

Potentially contaminated soil will be removed from each identified area to a depth of twelve inches. Once the soil is removed, new top soil will be brought in and sod will be applied to the area. Landscape features, trees and shrubs that were removed or damaged during excavation will be restored, to the extent possible, to pre-excavation conditions.

MAECORP will make every effort to keep dust to a minimum during all excavation activities. However, to assure that no dust enters your residence, you should keep your windows and doors closed, to the extent possible, while soil excavation is occurring. Additionally, you should refrain from hanging out any laundry for the duration of the excavation. Every effort should be made to keep children and pets away from heavy machinery and areas being excavated. The excavation day will begin at 7:00 a.m. and end at 0:00 p.m. We will try to keep the noise down to a minimum, especially in the early morning hours.

EX #-3

717 Henry Street Portonouth, Virginia 23704 July 3, 1992

Dear Honorable John Warner,

My wife and I have been a resident of this community for thirty-two years. Our daughter was nine years old when we moved into our home. This is where we had planned to rear our family and where we had planned to spend the rest of our lives enjoying our life and spend playing with our grandchildren and great grandchildren.

Now, I have Learned that the area where I live has been desinated as the Abex Superfund site. My whole yard is highly contanimated with <u>lead</u>.
This is the yard where my family and I enjoyed playing in and working in for thirty-two years. Now, I am afraid to allow my grandchildren and great grandchildren to play in the yard. I am afraid that they can get lead poison.

I am sixty-eight years old and my wife is sixty-four years old. This is too late in life for us to have to worry about our health and the health of our grandchildren who spend time playing in our yard. It is also too late in life to have to worry about the value of our home decreasing. We have spent years trying to keep our home up and trying to have an investment to Leave to our daughter and her family. Now, I find out that because of the high lead level in my yard, that my health is in danger and that the value of my home has gone down. I can't give my home away if I tried! All of my hard work to get ahead in life has not paid off.

This is too much worry, stress, and frustration for someone of my age.

My wife and I are on a fixed income. We can't just pick up and start over again. We would like to be relocated while the clean up is being done. We would also like to be monetarily compensated so that we can move to an area where it is safe to live, and where I will feel safe allowing my great grand-children to play in the yard. As tax paying citizens, don't you agree that we need to live our final days without worrying if the contamination is going to come back again and cause us more damage than just the devalue of our property? THE LOSS OF OUR LIVES!

Sincerely

Martin V. Williams
Martin V. Williams

(Lara Williams

that this process will require several more weeks to complete, because of the large number of comments received.

EPA will be pleased to send a copy of the ROD and Responsiveness Summary to you as soon as they are finalized. If you or someone from your office would like to discuss specific issues raised by Mr. & Mrs. Williams, please feel free to contact this office.

Sincerely.

Edwin B. Erickson Regional Administrator

JOHN WARNER

COMMITTER:

ARMED SERVICES
SELECT COMMITTEE ON INTELLIGENCE
ENVIRONMENT AND PUBLIC WORKS
RULES AND ADMINISTRATION

United States Senate

223 RUSSELL SENATE OFFICE BUILDING WASHINGTON DC 203-10-4501 (202) 224-2023

CONSTITUENT SERVICE OFFICES

490 WORLD TRADE CENTER NORFOLK, VA 23510-1524 (804) 441-3079

235 FEDERAL BUILDING 130 WEST MAIN STREET 48INGDON VA 24210-0887 (703) 528-8158

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July 24, 1992

Mr. Patrick H. Quinn Office of Congressional Affairs Environmental Protection Agency 401 M Street, SW Washington, D. C. 20460

Dear Mr. Quinn:

Your consideration of the attached correspondence from Mr. & Mrs. Martin Williams concerning an environmental clean up of their property will be appreciated. Please return your reply, in duplicate form, to the following address:

Senator John W. Warner 490 World Trade Center Norfolk, Virginia 23510 ATTN: Loretta H. Tate

Thank you for your time and courtesy.

With kind regards, I am

Sincerely,

John Warner

JW/lt

1725 Effingham Street
Portsmouth, Vinginia 23704
June 28, 1992

The Honorable TormanSisisky
U.S. House of Representative
425 Ethan Avenue
Tashington, O.C. 20515

JUL 118 1992

Dear Honorable Yorman Sisisky,

I am a resident in the Abex Superfund site. My yard has been contaminated by lead from the Abex (orp. (a brass and bronze foundry that operated from 1928 to 1978). The problem was discovered eleven years ago. I have been living here for thirteen years. I learned of the high lead level in May of this year!

I feel as though a cover-up has taken place. I really would like to have your help. Would you please help me in getting my requests made known to the proper authorities?

I am asking the U.S. Environmental Protection Agency to please consider the following requests.

- 1. Remove my family and I during the clean up. (Our home is not air tight and lead will come in during the clean up).
- 2. Remove all soil from my entire yard at least twelve inches or more.
- 3. Remove all contaminated will on under my house. (Without causing structure damage. "; in rurance will not cover any damage causes by the none.
- 4. Replace all flowers, trees or harriery in my yard.

- 5. Give me a written quarantee that the lead in my yard will be at a safe level once the removal has taken place.
- 6. Test the inside of my house before and after the clean up to make sure the lead level is safe for humans.
- 7. Give me a written quarantee that my property is in better condition and not in worse condition because of the removal.
- 8. Test my daughter and myself for lead poison, and provide for any needed treatment.
- 9. Treat the contaminated soil offsite and not in my neighbor-hood as planned.
- 10. Guarantee in writing that my property value will not decrease because of the removal action.

I am very concerned about the mental and physical health of my daughter (thirteen years old) and myself. I was expecting my daughter will I purchased this home. She has been playing in the yard since she was born! I have not been given any guarantees that the problem can be completely corrected without causing my property to decrease in value.

It would be unfair for me to continue to live here if all of the requests can not be met. In that case, I should be monetarily compensated so that I will be able to rove to a safer home. One my daughter can safely play in, and I can safely plant flower and vegetable gardens.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

AUG 1 > 1992

Senator John W. Warner United States Senator 490 World Trade Center Norfolk, VA 23510

Dear Senator Warner:

This is in response to your letter of July 24, 1992, to Mr. Patrick H. Quinn, Office of Congressional Liaison, Environmental Protection Agency (EPA), on behalf of your constituents, Mr. & Mrs. Martin Williams of Portsmouth, Virginia, concerning the cleanup of the Abex Superfund Site.

On April 29, 1992, the Environmental Protection Agency (EPA) initiated a formal thirty-day public comment period on the Agency's Proposed Plan (enclosed) for cleanup of the Abex Site. Part of this cleanup focuses on removal of lead-contaminated soils in the residential areas adjacent to the former foundry facility. Mr. & Mrs. Williams are one of several homeowners in the area where cleanup is planned.

The Proposed Plan discusses a total of seven alternative cleanup options that EPA and the Virginia Department of Waste Management (VDWM) are currently considering to address contamination at the site. The alternative identified as the preferred choice by EPA at the time the plan was issued requires excavation of lead-contaminated soils in the residential yards, stabilization of the excavated soils, and transportation off-site to a landfill. This alternative would also address contamination at the foundry facility itself.

EPA is aware that there are serious concerns about the cleanup strategy being proposed among the residents impacted by this Superfund site. We have met with the residents during a formal public meeting on May 7, 1992 and during a series of subsequent meetings in the community. At the request of local residents, EPA extended the public comment period on the Proposed Plan until July 10, 1992. The letter you received from Mr. & Mrs. Williams was received by the Agency during this formal comment period.

In preparing the final Record of Decision (ROD) for the Abex Site, EPA is carefully considering all the comments received during the public comment period. EPA will formally respond to all comments, including those submitted by Mr. & Mrs. Williams, in the ROD Responsiveness Summary. Since Mr. & Mrs. Williams's concerns must be considered with all other comments received by EPA and VDWM, it is difficult for the Agency to provide you with a formal response to their comments at this time. We anticipate

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Glasser and Glasser

Attorneys and Counsellors at Law

Richard S. Glasser
Michael A. Glasser
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Melvin R. Zimm
William H. Monroe, Jr.*
Jack O. Kingsley
Charlotte E. Vaughn
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***Also admirted in LA and TX.

600 Dominion Tower 999 Waterside Drive Norfolk, Virginia 23510-3300

(804) 625-6787

Writer's Direct Dial No.

Bernard Glasser 1910-1983

Telecopier (804) 625 4115

Peninsula (804) 722-3110

September 11, 1992

Ms. Bonny Lomax (3EA20)
U.S. Environmental Protection Agency
Region III
Freedom of Information Office
841 Chestnut Building
Philadelphia, PA 19107

Re: Abex Superfund Site Community Relations Plan

Dear Ms. Lomax:

You have been referred to me by the Virginia Department of Waste Management in helping me to obtain notes from the above mentioned plan.

While reading through documents contained in the Abex Information Repository, several references were made regarding interviews with Portsmouth City officials. I direct your attention to Volume I - Remedial Investigation (Community Relations Plan, May 1990, section III.C). This office kindly requests a copy of the interview notes utilized to compile this report.

Although this document was submitted by the Virginia Department of Waste Management, copies of the interviews do not appear within their files.

I would ask you to contact me if there is a special request procedure this office is required to present. I thank you in advance for your cooperation in this matter.

Very truly yours,

GLASSER_AND GLASSER

Chartes J. Childress

Legal Assistant



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

JUL 27 1992

Honorable Norman Sisisky
Member, House of Representatives
309 County Street, Suite 204
Portsmouth, Virginia 23704

Dear Mr. Sisisky:

This is in response to your letter of July 7, 1992, to Mr. Patrick H. Quinn, Office of Congressional Liaison, Environmental Protection Agency (EPA), on behalf of your constituent, Ms. Sharon E. Nichols of Portsmouth, Virginia, concerning the cleanup of the Abex Superfund Site.

On April 29, 1992, the Environmental Protection Agency (EPA) initiated a formal thirty-day public comment period on the Agency's Proposed Plan (enclosed) for cleanup of the Abex Site. Part of this cleanup focuses on removal of lead-contaminated soils in the residential areas adjacent to the former foundry facility. Ms. Nichols is one of the homeowners in the area where cleanup is planned.

The Proposed Plan discusses a total of seven alternative cleanup options that EPA and the Virginia Department of Waste Management (VDWM) are currently considering to address contamination at the site. The alternative identified as the preferred choice by EPA at the time the plan was issued requires excavation of lead-contaminated soils in the residential yards, stabilization of the excavated soils, and transportation off-site to a landfill. This alternative would also address contamination at the foundry facility itself.

EPA is aware that there are serious concerns about the cleanup strategy being proposed among the residents impacted by this Superfund site. We have met with the residents during a formal public meeting on May 7, 1992, and during a series of subsequent meetings in the community. At the request of local residents, EPA extended the public comment period on the Proposed Plan until July 10, 1992. The letter you received from Ms. Nichols was received by the Agency during this formal comment period.

In preparing the final Record of Decision (ROD) for the Abex Site, EPA is carefully considering all the comments received during the public comment period. EPA will formally respond to all comments, including those submitted by Ms. Nichols, in the ROD Responsiveness Summary. Since Ms. Nichols's concerns must be considered with all other comments received by EPA and VDWM, it is difficult for the Agency to provide you with a formal response to her comments at this time. We inticipate that this process

will require several more weeks to complete because of the large number of comments received.

EPA will be pleased to send a copy of the ROD and Responsiveness Summary to you as soon as they are finalized. If you or someone from your office wou. like to discuss specific issues raised by Ms. Nichols, please feel free to contact this office.

Sincerely,

Edwin B. Erickson Regional Administrator

Enclosure

VIRGINIA DEPARTMENT OF WASTE MANAGEMENT SUPERFUND PROGRAM

PROPOSED PLAN

Abex Corporation Portsmouth, Virginia

April 28, 1992

INTRODUCTION

In accordance with the terms of an Administrative Order on Consent between the Virginia Department of Waste Management (VDWM) and the Abex Corporation (now known as the Pneumo Abex Corporation), the Abex Corporation has completed a Remedial Investigation/Feasibility Study (RI/FS) of the Abex Corporation Superfund Site ("Site"), located in Portsmouth, Virginia. The Remedial Investigation (RI) characterizes the nature and extent of contamination associated with the Site, while the Feasiblity Study (FS) evaluates remedial alternatives for contamination of concern.

Based on the results of the RI/FS, VDWM and the U.S. Environmental Protection Agency (EPA) have identified a preferred alternative for remediating contaminated soils and structures which are known to be associated with the Site and constitute an unacceptable long-term human health risk (see Scope and Role of Remedial Action below). This part of the Site has been designated as Operable Unit One (OU-1). Under the preferred alternative for OU-1 (identified on page 10 as Alternative 7), contaminated soils would be excavated, treated onsite by a stabilization/solidification process, and disposed in an offsite landfill, while the former foundry facility would be decontaminated. This Proposed Plan summarizes the findings of the RI/FS and explains the basis of the preferred alternative for OU-1.

VDWM, the lead agency, and EPA, the support agency for the RI/PS project at the Site, are issuing this Proposed Plan to fulfill the requirements under Sections 113(k), 117(a) and 121(f) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. A subsequent plan shall address Operable Unit Two (OU-2), which will address additional media which may be contaminated by the Site.

PUBLIC PARTICIPATION INVITED

VDWM and EPA encourage the public and interested parties to review and comment on the preferred alternative, other alternatives considered in the Proposed Plan, and other documents comprising the Administrative Record for the Site. VDWM and EPA may modify the preferred proposed alternative or select another alternative presented in this Proposed Plan based on new information or public comments. The selected remedy will be documented in a Record of Decision, which shall be placed in an information repository for public review (see below).

The public comment period begins on April 29, 1992 and concludes on May 28, 1992. The Administrative Record is available for public review in the information repository, which is located in the Reference Section of the Portsmouth Public Library - Main Branch, 601 Court Street, Portsmouth, Virginia (804-393-8501). Written comments must be postmarked no later than May 28, 1992, and submitted to one of the following VDWM representatives:

Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-2903

or

Stephen Mihalko
Remedial Project Manager
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219
804/225-3263

VDWM and EPA will hold a public meeting on May 7, 1992 at 7:30 pm in the City Council Chambers, City Hall Building, Columbia and Waters Streets, Portsmouth, Virginia, to present a summary of the RI/FS reports and the proposed alternative, and to provide an opportunity for interested citizens to raise questions or comments.

SITE BACKGROUND

The Site is located in a residential area of the City of Portsmouth in Virginia. The Site includes a former foundry that made bearings for railroad cars from 1928 to 1978. The former foundry facilities currently located on land owned by John Holland (hereafte referred to as the Holland Lot). The foundry disposed of waste sand laden with heavy metals (including lead) in a one acre area

(hereafter referred to as the Abex Lot) immediately north of the former foundry facility. (Figure 1 provides a map of Site-related features discussed in this Plan.) The foundry also released air emissions of fine particulates from a stack during its years of operation.

In 1986, the EPA identified high lead concentrations in the foundry waste within the Abex Lot and in soil of neighboring residential lots. Pursuant to a Consent Order signed with EPA in 1986, Abex excavated and removed contaminated soil at varying depths (6 to 12 inches) from certain residential areas around the Abex Lot, and paved/fenced the Abex Lot and the McCready Lot. All excavated areas were filled with clean soil and revegetated.

On October 10, 1989, VDWM, serving as the lead agency, entered into an Administrative Order on Consent with Abex, requiring Abex to conduct an RI/FS to fully assess any additional contamination associated with the Site and to identify remedial alternatives for Site-related contamination of concern.

FINDINGS OF REMEDIAL INVESTIGATION (RI)

The RI found elevated levels of lead, copper, antimony, tin and zinc associated with the Site in the following areas: the former foundry (now part of the Holland Property), under the asphalt-capped Abex and McCready Lots, and soils of residential and non-residential areas. The primary contaminant of concern is lead (see Risk Assessment below).

Soil ("floor dirt") and dust throughout the interior of the foundry building contain lead levels of up to 100,000 mg/kg. Outdoor soils on the Holland Property contain lead levels of up to 58,000 mg/kg within the top two feet.

Site-related waste sand is buried in the Abex Lot to a depth of at least four feet, with lead concentrations ranging up to 24,000 mg/kg. Lead levels of up to 4,750 mg/kg occur within the top two feet of soil under asphalt within the McCready Lot.

Surrounding areas containing lead-contaminated soil associated with the Site include the Drug Rehabilitation Center/Shopping Center area, the Washington Park public housing area, Effingham Playground, private residential properties in an area hereafter referred to as the Effingham Residences, private residential properties on Seventh Street and Vacant Lots on the east side of Seventh Street. (See Figure 1 for the locations of these areas.)

While a previous Removal Action (see Scope and Role of Remedial Action) removed the majority of lead-contaminated surface soils from Washington Park, isolated surface soils within this area still exceed 500 mg/kg lead. In addition, areas within Washington Park

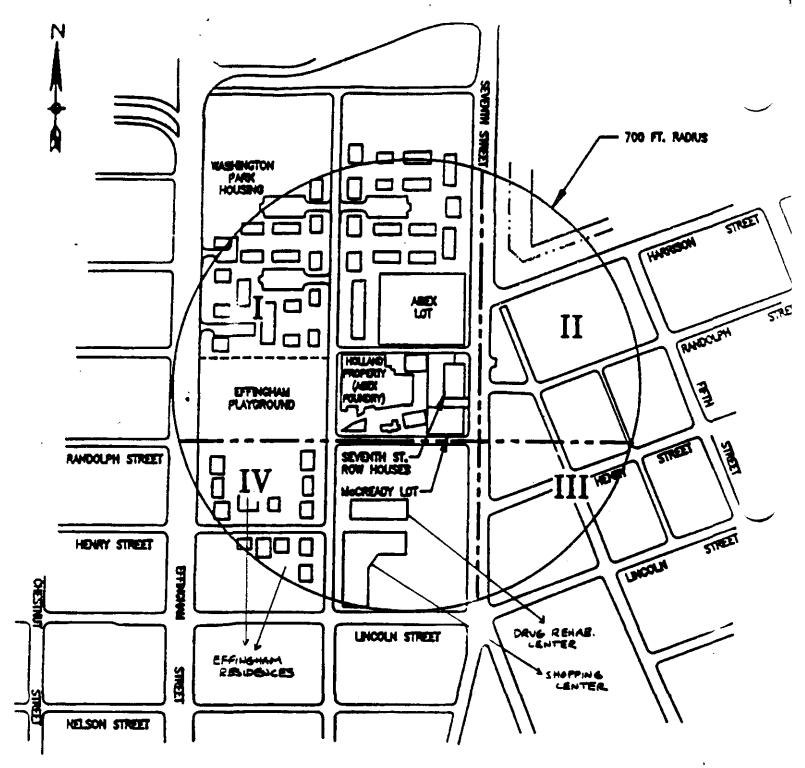
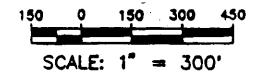


FIGURE 1





NOTE: Quadrants refer to sampling areas referenced in RI.

contain lead levels of up to 46,500 mg/kg in soils between 1 and 4 feet in depth.

Surface soils within the Effingham Residences have lead concentrations of up to 7,890 mg/kg, while soils at depths of 1 to 4 feet have lead levels of up to 8,000 mg/kg in certain areas. In addition to containing some surface soils with lead exceeding 500 mg/kg lead, soils at one to four feet within the Effingham Playground contain lead levels of up to (or over) 5,000 mg/kg.

Scils within lots associated with the Seventh Street Row Homes contain lead at levels up to 7,000 mg/kg at 0 to 2 feet in depth. In addition, attics of two Seventh Street homes contain dust with lead levels of up to 7,030 mg/kg.

Site-related lead has been detected in surface soils of the Vacant Lots west of Seventh Street at levels up to 1,200 mg/kg, while subsurface soils in this area contain lead of up to 6,000 mg/kg. Surface soils within the Drug Rehabiliation Center/Shopping Center area contain lead at levels up to 9,300 mg/kg.

Sampling and analysis of groundwater within the surface aquifer immediately downgradient of the Abex Lot has detected lead levels of 30 ug/l.

RISK ASSESSMENT

A Risk Assessment performed as part of RI activity has determined that lead is the primary contaminant of concern at the Site. Residents (or workers) may be exposed to the lead found in contaminated soils and dust by ingestion or inhalation.

Currently, the EPA assesses risk from exposure to lead contaminated soils and dust through a Lead Uptake Biokinetic Model. The model simulates uptake, distribution, and elimination of lead from the body. The model assumes potential sources of lead exposure are water, dust, soil, and food. Since groundwater and surface water are not used for drinking water purposes in this case, potential exposure sources of lead to residents and/or workers in this case are inhalation of dust, incidental ingestion of soil (particularly by children) and consumption of food.

The results of the model for this site conclude that children are exposed to an unacceptable health risk when lead concentrations in surface soil or dust exceed 500 mg/kg. The primary exposure pathways of concern in this case are incidental ingestion of soil and inhalation of dust. The Risk Assessment has concluded that there is no significant health risk from consuming fruits or vegetables grown in soil in residential (or potential residential areas on and around the Site, provided that such vegetables and/or fruits are washed to remove surface soil or dust.

The surface aquifer underlying the Site is not currently used, but may be hydraulically connected to underlying aquifers which may become a source of drinking water. Monitoring of the surface aquifer immediately downgradient of the Abex Lot indicates groundwater at this location exceeds the Cleanup Level for lead in groundwater of 15 ug/l (see EPA Memorandum dated June 21, 1991 in Adminstrative Record).

Actual or threatened releases from the Site, if not addressed through a remedial action, may present a current or potential threat to public health, welfare or the environment.

SCOP AND ROLE OF REMEDIAL ACTION

The EPA has determined that soils within current residential areas which exceed 500 mg/kg lead within the the foot of soil resent a short-term threat to human health. As a result, the EPA issued a Unilateral Administrative Order to the Abex Corp. requiring it to remove such soil from the Site. The EPA shall perform the work described under the UAO should Abex decline to do so.

Remedial alternatives for addressing remaining, long-term, unacceptable, Site-related health risks are identified in this Proposed Plan.

Based on the findings of the Remedial Investigation and the Risk Assessment, the primary objectives of the Remedial Action addressing long-term risks are as follows:

- Eliminate incidental ingestion of soil which exceeds 500 mg/kg of lead
- · Eliminate inhalation of dust which exceeds 500 mg/kg lead
- Prevent releases of lead which result in greater than 15 ug/l lead in potential drinking water supplies

In addition, as provided by the National Contigency Plan, all soil associated with the Site which constitutes a principal threat shall be treated wherever practicable. (See National Contingency Plan, Section 300.430(a)(1)(iii).) In this case, the EPA considers any soil with lead at concentrations over one order of magnitude higher than 500 mg/kg to be a principal threat. As a result, all soil or waste with lead concentrations over 5000 mg/kg should be treated wherever practicable.

SUMMARY OF ALTERNATIVES

In the FS for the Site, a screening of engineering technologi applicable to remediating the contaminated media was complete.

The technologies were screened according to their effectiveness and implementability. Those technologies determined to be most applicable were then developed into remedial alternatives. The following remedial alternatives have been identified based on the evaluation of alternatives in the FS Report. In all cases, the alternatives are for work to be performed in addition to that already planned under the Removal Action.

Alternative 1: No Action

Alternative 2: Surface Soil Excavation, Offsite

Treatment/Disposal, Capping,

Institutional Controls

Alternative 3: Surface and Subsurface Soil Excavation,

Offsite Treatment/Disposal

Alternative 4: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal

Alternative 5: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal,

Capping, Institutional Controls

Alternative 6: Surface and Subsurface Soil Excavation,

Onsite/In Situ Treatment, Offsite

Disposal, Capping, Institutional Controls

Alternative 7: Surface and Limited Subsurface Soil

Excavation, Onsite Treatment, Offsite

Disposal

COMMON ELEMENTS OF ALL ALTERNATIVES

Except for the No-Action Alternative, all of the remedial alternatives include certain common elements.

In each case, the former foundry facility structure, interior and equipment will be decontaminated as necessary. Equipment maintained within the facility by the current property owner may have to be decontaminated or temporarily removed from the facility prior performing decontamination. Decontamination shall consist of soil and dust removal by vacuum, pressure water wash, or similar means.

Solid residuals generated by this process shall be handled in the same manner as contaminated soils. Any contaminated soil at depth within the building interior shall be addressed in a manner consistent with exterior soils on the Holland Property.

With each alternative, soil excavation and offsite soil disposal is necessary. Testing shall be conducted to determine whether an excavated soil is a characteristic hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Soil which is determined to be a RCRA hazardous waste shall be treated prior to land disposal. Soil which is not a RCRA hazardous waste may still require treatment prior to disposal in a Solid Waste Management Facility within Virginia or another state.

In each case, conventional earth moving equipment would be used to excavate and load contaminated soil. All excavated areas would be backfilled with clean fill and revegeated.

Discharge of decontamination water and any other water generated during remedial activities will meet Virginia Pollution Discharge Elimination System (VPDES) requirements developed pursuant to the Federal Clean Water Act and Virginia State Water Control Law.

Any air emissions generated during remedial activities shall meet National Emission Standards for Hazardous Air Pollutants (NESHAPS) developed under the Federal Clean Air Act and the Virginia Regulations for the Control and Abatement of Air Pollution (VRCAAP). Air shall be monitored to protect the health of onsite workers and the community. Sampling of the interior of homes in the vicinity of excavation shall be performed to assure there is no significant release of dust into homes during remedial activity.

In each case where treatment is included, the treatment shall be stabilization and/or solidification.

In all cases, transportation, storage, treatment and disposal of soil and other contaminated medi: will be in compliance with Virginia Hazardous Waste Management Regulations (VHWMR) and RCRA.

The unique aspects and estimated cost of each alternative is summarized below. Present Worth includes an estimate of operation and maintenance (O & M) costs over a thirty year period. For each alternative, the cost estimate is for the work to be performed in addition to that performed under the Removal Action.

Alternative 1: No Action

Pursuant to the National Contingency Plan (NCP), the "no action" alternative is considered to provide a base line for comparison to other alternatives. Under this alternative, no action beyond the Removal Action shall be performed. Soils with lead levels exceeding 500 mg/kg within the top foot would remain at the Drug Rehabilitation/Shopping Center Area and Vacant Lots. Soil: identified as a principal threat (lead levels greater than 5000 mg/kg) would remain in the Abex Lot, Holland Property, Washington

Park and Effingham Residence area. In addition, soils with lead greater than 500 mg/kg would remain at 12 to 24" within areas where gardening (or similar intrusive activities) and redevelopment may occur. Certain areas of lead contamination, including the Abex and McCready lots, and areas of the Holland Property, are currently capped and fenced, minimizing exposure to underlying lead at this time. However, these caps would not be permanently maintained under this alternative.

Alternative 2: Surface Soil Excavation, Offsite Treatment/ Disposal, Capping, Institutional Controls

Under this alternative, remaining Site-related soils exceeding 500 mg/kg lead within the top one foot (which are not currently capped) would be excavated. Areas of excavation would include the Drug Rehabilitation/Shopping Center and Vacant Lots. Existing caps on the Abex Lot, McCready Lot and the Holland Property would be permanently maintained under this alternative. To control exposure to the capped soils (which constitute a principal threat) over the long-term, institutional land-use controls (e.g. deed restrictions) would be implemented. In addition, a groundwater monitoring program would be implemented. As noted under Common Elements, this and all remaining alternatives include foundry facility decontamination. A CERCLA five-year review would be required under this alternative. This alternative is designated as Alternative II, Case 1, in the FS.

Capital Cost: \$ 4,643,250

O & M Cost: \$ At least \$23,500

Present Worth: \$ 4,666,750 Time to Construct: 12 weeks

Alternative 3: Surface and Subsurface Soil Excavation, Offsite Treatment/Disposal

All known Site-related soil exceeding 500 mg/kg lead would be excavated and treated/disposed offsite under this alternative. Extensive surface and subsurface soil excavation would occur within all areas of concern identified under Findings of Remedial Investigation. Excavation would include soils currently capped with asphalt or cement. The former foundry facility would be decontaminated. This alternative is designated as Alternative II, Case 2, in the FS.

Capital Cost: \$ 37,672,820 O & M Cost: none Present Worth: \$ 37,672,820 Time to Construct: 57 weeks

Alternative 4: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

As under Alternative 3, all known Site-related soil exceeding an 500 mg/kg lead would be excavated.

Soil characterized as non-hazardous could be segregated and transported to a non-hazardous waste landfill. Soil characterized as hazardous would treated onsite by mixing with reagents in a soil treatment system. The system would create a final product that immobilizes metals and meets RCRA Land Disposal Restrictions for lead. The stabilized product could be transported to a non-hazardous waste landfill for disposal. Prior to excavation of contaminated soil on the Abex and McCready Lots and the Holland property, existing asphalt and concrete would be removed and could be disposed as construction and demolition debris. The former foundry facility would be decontaminated. This alternative is identified as Alternative III, Case 2, in the FS.

Capital Cost: \$ 29,734,820 O & M Cost: none Present Worth: \$ 29,734,820 Time to Construct: 55 weeks

Alternative 5: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, all Site-related soil exceeding 500 mg/kg lead would be excavated, with the exception of the Holland, Abex and McCready Lots, which would be permanently capped with asphalt. Institutional land-use controls and an operation and maintenance program would be implemented to control exposure to capped soils which constitute a principal threat. A groundwater monitoring program would also be implemented. This alternative also includes decontamination of the foundry facility.

All excavated soils would be addressed as described under Alternative 4. A CERCLA five-year review would be required under this alternative. This alternative is identified as Alternative V, Case 2, in the FS.

Capital Cost: \$ 21,852,250 O & M Cost: At least \$ 23,500

Present Worth: \$ 21,875,750

Time to Construct: 44 weeks

Alternative 6: Surface and Subsurface Soil Excavation, Onsite and In Situ Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, all Site-related soil above 500 mg/kg lead within the Abex, McCready and Holland Lots would be treated in situ (in place) to immobilize the lead of concarn. All other Sitarelated soil exceeding 500 mg/kg lead would be excavated and treated onsite as described under Alternative 4.

The in situ treatment process is described in detail in the FS. Generally, this process utilizes augers and mixing paddles to inject and mix stabilizing agents into subsurface soils. Upon completion of this process, lead within the soil of concern is expected to be stabilized/solidified. Prior to the in situ treatment, existing asphalt and concrete on the Abex Lot, McCready Lot and Holland Property would be removed and could be disposed as construction and demolition debris. After the in situ treatment is complete, asphalt caps would be permanently placed and maintained on these areas. Operation and maintenence, institutional land-use controls and groundwater monitoring would be necessary for areas that have been treated in situ and capped. The former foundry facility would be decontaminated. A CERCLA five-year review would be required. This alternative is identified as Alternative VII, Case 2, in the FS.

Capital Cost: \$ 23,432,250 O & M Cost: At least \$ 23,500

\$ 23,455,750 Present Worth: Time to Construct: 45 weeks

Alternative 7: Surface and Limited Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

Under this alternative, all Site-related soils exceeding 500 mg/kg lead at 0 to 24 inches would be excavated. In addition, all Siterelated soils exceeding 5000 mg/kg and constituting a principal threat would be excavated.

All excavated soils would be addressed as described under The former foundry facility would Alternative 4. decontaminated. A CERCLA five-year review would be required under Documentation of the estimated cost of this this alternative. remedy appears in the Administrative Record.

\$ 16,234,850 Capital Cost: Annual Cost: none Present Worth: \$ 16,234,850 Time to Construct: 40 weeks

EVALUATION OF ALTERNATIVES

This section compares the alternatives listed above in accordance with the nine criteria required by the NCP for the evaluation of remedial alternatives. (Please see the attached glossary.)

Overall Protection of Human Realth and the Environment

Lead levels in the surface soil (0-12") at the Site exceed the health-based level of 500 mg/kg. For this reason alone, Alternative 1 (No Action) would not be protective of human health and therefore shall not be considered further as a remed 1 alternative.

Alternative 2 provides a remedy for existing surface so s exceeding 500 mg/kg lead. However, Alternative 2 does not provide a remedy for any soil with greater than 500 mg/kg lead below one foot in depth. Of concern in this regard are (1) soils which exceed 5000 mg/kg lead and present a principal threat, thus requiring treatment per the NCP, (2) soils which exceed 500 mg/kr below 12" in depth which will likely be exposed to the surface due to gardening or similar intrusive activities and (3) soils below 12" which will likely reach the surface due to redevelopment or similar activity. In addition, this alternative does not remove or treat soils in the Abex Lot which are the source of unacceptable lead levels in groundwater.

Alternatives 3 and 4 would remove all soils with lead exceeding 500 mg/kg and thus be protective of direct exposure to this metal, as well as the underlying aquifer with regard to lead releases.

Alternative 5 would remove soils exceeding 500 mg/kg from the Size with the exception of those within the Holland, Abex and McCready Lots, which would be permanently capped with asphalt. Since the Holland and Abex Lots both contain lead at levels exceeding 5000 mg/kg, Alternative 5 would not remediate a principal threat through treatment. Alternative 5 also may not be protective of the aquifer of concern because lead-contaminated soil in the Abex Lot would remain in place.

Alternative 6 would remove all soils exceeding 500 mg/kg from the Site, with exception of soils within the Abex, Holland and McCready Lots, which would be treated in situ. Provided the in situ treatment effectively immobilizes the lead, Alternative 5 is likely to be fully protective with regard to lead.

Alternative 7 would effectively eliminate all unacceptable her this risk at the Site. This alternative would: (1) excavate all soil at 0-24" with lead exceeding 500 mg/kg, eliminating potential for

unacceptable exposure due to gardening, redevelopment or similar intrusive activities, (2) remove and treat all soils which exceed 5000 mg/kg and thus present a principal threat per the NCP and (3) excavate all soil exceeding 5000 mg/kg within the Abex Lot, thus removing the source of lead contamination in groundwater.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Under Alternatives 2 and 5, soils exceeding 5000 mg/kg lead within the Abex Lot will be capped rather than removed or treated in place. Since these soils appear to be responsible for elevated levels of lead in groundwater, these alternatives may not be consistent with the relevant and appropriate, chemical-specific requirement that lead in a potable aquifer should not exceed 15 ug/l lead.

All other alternatives are expected to be in compliance with existing ARARs.

Long-term Effectiveness and Permanence

For reasons cited above under Overall Protection of Human Health and the Environment, Alternative 2 is not a protective remedy. While more protective than Alternative 2, Alternative 5 does not treat soils that constitute a prinicipal threat.

Alternatives 3 and 4 are equally protective. Both of these alternatives would be effective over the long term and provide a permanent remedy.

Alternative 6, which includes in situ treatment of the Abex, Holland and McCready Lots, is expected to be protective in the manner of Alternatives 3 and 4, provided the in situ treatment successfully renders the soil of concern a nonhazardous waste (per RCRA).

Alternative 7 is expected to be similar in permanence and long-term effectiveness to Alternatives 3 and 4. While some soil with elevated lead levels would remain in place at depths over 2 feet under this alternative, soil movement during any long-term redevelopment activity is not expected to result in an unacceptable health risk. In addition, these soils do not constitute a principal threat.

Reduction of Toxicity, Mobility, or Volume Through Treatment

In the case of Alternatives 2 and 5, the principal threat at the Site would not be remediated through treatment.

Alternative 6 remediates a principal threat through in s a treatment. While this treatment may be effective in reducing a mobility of lead in the soil of concern, this cannot be confirmed at this time.

Alternatives 3, 4 and 7 all reduce inherent hazards posed by principal threats at the Site by the use of the proven treatment technology of stabilization/solidification. While Alternatives 3 and 4 treat more soil than Alternative 7, the additional soil of concern does not constitute a principal threat.

Short-term Effectiveness

Possible short-term effects of all of the "action" alternatives include exposure to dust emissions and erosion of soil. Dust generation and erosion can be mitigated through water spraying and the implementation of a stormwater management plan, respectively

A Health and Safety Plan, which includes sampling and monitoring, shall be developed and implemented under all of the action alternatives to assure protection of both local residents an workers.

Implementability

Alternative 2 is the most implementable due to the minimal work to be performed.

Alternatives 2, 5, and 6 all include maintenance of caps and institutional controls. Difficulties are likely to be encontered in the implementation of land-use controls and a permanent cap maintenance program. Groundwater monitoring would also be required under each alternative.

Alternatives 3, 4, 5 and 6 would include the most soil excavation (or remedial activity) within residential areas, and as a result, the most significant disruption of the daily routine of residents. To fully implement these alternatives, some relocation of residents may be necessary. While temporary relocation may be necessary under Alternative 7, this alternative would reduce community disruption by minimizing the quantity of soil excavation, while still being protective of human health.

In the case of Alternatives 4 and 7, implementation of onsite treatment will require extensive planning and constructic activities. In addition, pilot scale studies will be required thelp design the system. The implementation of these alternatives will require significant additional activity onsite and will be more time-consuming Alternative 3, where treatment is performed at an existing, RCRA- permitted offsite facility.

Alternative 6 includes in situ treatment of the Abex Lot and the Holland Lot, as well as treatment of excavated soils in an additional onsite treatment unit. The use of two separate onsite treatment units may further increase the time necessary to complete the remediation. Extensive pilot-scale treatment studies will be necessary to confirm the effectiveness of the in situ treatment system. In addition, significant adminstrative activity will likely be required to obtain approval from the Virginia Department of Waste Management to fully implement in situ treatment as a permanent remedy. As a result of these factors, this alternative will likely take the longest to implement.

Cost

Alternative 2 has the lowest capital cost. However, long-term cap maintenance and groundwater monitoring costs would be incurred. The estimated present worth of this alternative is \$ 4,643,250.

Alternative 3 is the most costly alternative with an estimated present worth of \$ 37,672,820, while the estimated present worth of Alternative 4 is \$ 29,734,820. There are no annual operation and maintenance costs associated with either alternative.

Alternative 5 and 6 are relatively equal in estimated present worth at \$ 21,875,250 and \$ 23,455,750 respectively. In the case both alternatives, operation and mainatenance costs would be incurred.

The estimated present worth of Alternative 7 is \$ 16,234,000. No annual costs are anticipated under this alternative.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated at the end of the public comment period and will be described in the responsiveness summary in the ROD.

SUMMARY OF THE PREFERRED ALTERNATIVE

Based on an evaluation of the alternatives, VDWM and EPA have identified Alternative 7 - Surface and Limited Subsurface Soil Excavation, Onsite Treatment and Offsite Disposal as the preferred alternative. Based on current information, this alternative appears to provide the best balance of tradeoffs among the alternatives with respect to the evaluation criteria.

Alternative 2 was eliminated because it did not provide treatment of soils which constitute a principal threat per the NCP and would not be protective where gardening (or similar activities) or redevelopment may occur. Alternative 5 was also eliminated due to

its failure to treat a principal threat.

Alternative 6 was eliminated due to potential implementability problems with in situ treatment and/or the combination of in situ and onsite treatment.

Alternatives 3 and 4, while fully protective, both involve extensive excavation within residential areas. While some temporary relocation may also be needed under Alternative 7, a reduction in the extent of subsurface excavation under Alternative 7 should minimize community disruption to the extent feasible and thus reduce implementability problems. In addition, Alternative 7 is expected to achieve a risk reduction similar to that under Alternatives 3 and 4, but at a significantly lower cost. A CERCLA five-year review will help assure the protectiveness of Alternative 7.

Based on information available at this time, the VDWM and the EPA believe the preferred alternative would be protective of human health and the environment, would comply with ARARs, would be cost effective and would use permanent solutions and alternative treatment technologies to the maximum extent practicable.

GLOSSARY

OVERALL PROTECTION OF HUMAN HEALTH AND ENVIRONMENT addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

COMPLIANCE WITH ARARs addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes and/or provides grounds for invoking a waiver.

LONG-TERM EFFECTIVENESS AND PERMANENCE refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met.

REDUCTION OF TOXICITY, MOBILITY, OR VOLUME through treatment is the anticipated performance of the treatment technologies that may be employed in a remedy.

SHORT-TERM EFFECTIVENESS refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

IMPLEMENTABILITY is the technical and administrative feasibility of a remedy, including the availability of meterials and services needed to implement the chosen solution.

COST includes capital and operation and maintenance costs. Present-worths are also calculated.

STATE ACCEPTANCE indicates whether, based on its review of the FFS and Proposed Plan, the State concurs with, opposes, or has no comment on the preferred alternative.

COMMUNITY ACCEPTANCE will be assessed in the Record of Decision following a review of the public comments received on the FFS report and the Proposed Plan.

RESOURCE CONSERVATION AND RECOVERY ACT - A Federal statute which regulates the active generation, transport, treatment, storage, and disposal of hazardous wastes.

RECORD OF DECISION - A document which selects a remedial alternative for a Superfund National Priority List site.

NATIONAL PRIORITY LIST - A list of uncontrolled hazardous waste sites which are eligible for Federal funding under CERCLA (or Superfund) for investigation and remedial activities.

CERCLA - (Comprehensive Environmental Response Compensation and Liability Act) A Federal statute which provides a mechanism for remediating uncontrolled hazardous waste sites.

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ARMED SERVICES COMMITTEE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

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SELECT COMMITTEE ON AGING

Congress of the United States

House of Representatives Washington, DC 20515-4604

July 7, 1992

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Mr. Patrick H. Quinn Assistant Administrator Environmental Protection Agency 401 M Street, S.W., Room W835 Washington, D. C. 20460

Dear Mr. Quinn:

I have enclosed a copy of the correspondence I have received from Sharon E. Nichols, 709 Henry Street, Portsmouth, Virginia 23704.

Please examine the contents and answer the questions raised.

Please respond to my staff at 309 County Street, Suite 204, Portsmouth, Virginia 23704.

Sincerely,

Member of Congres!

NS/br Enclosure

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709 Henry St Pods. Va. 23700

To Humorable Bisisky.

We've been loving here since. December 1979. My daughters were Tyears of age and 10 months old when we brought this home. Now my daughtern are 22t13 years of age.

I grown regetables and flowers

in my backyard in a small area and on the

side of my house.

time and has a three year old and a 2 months old. The three year old stays with me most of the time. They all play out in the dirt in the front, side and back yard making mud pies and eating list.

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Congress of the United States

House of Representatives Washington, DC 20515-4604

July 7, 1992

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Mr. Patrick H. Quinn Assistant Administrator Environmental Protection Agency 401 M Street, S.W., Room W835 Washington, D. C.

Dear Mr. Quinn:

I have enclosed a copy of the correspondence I have received from Joyce Jordan Gatling, 1725 Effingham Street, Portsmouth, Virginia 23704.

Please examine the contents and answer the questions raised.

Please respond to my staff at 309 County Street, Suite 204, Portsmouth, Virginia 23704.

Sincerely,

NS/br Enclosure

F Files

717 Honry Street Portsmouth, Virginia 23704 July 3, 1992

Dear Ms. Jamle Walters, ~-

My wife and I have been a resident of this community for thirty-two years. Our daughter was nine years old when we moved into our home. This is where we had planned to rear our family and where we had planned to spend the rest of our lives enjoying our life and spend playing with our grandchildren and great grandchildren.

Now, I have Learned that the area where I live has been desinated as the Abex Superfund site. My whole yard is highly contaminated with Lead. This is the yard where my family and I enjoyed playing in and working in for thirty-two years. Now, I am váfraid to allow my grandchildren and great grandchildren to play in the yard. I am váfraid that they can get lead poison.

I am sixty-eight years old and my wife is sixty-four years old. This is too late in life for us to have to worry about our health and the health of our grandchildren who spend time playing in our yard. It is also too late in life to have to worry about the value of our home decreasing. We have spent years trying to keep our home up and trying to have an investment to Leave to our daughter and her family. Now, I find out that because of the high lead level in my yard, that my health is in danger and that the value of my home has gone down. I can't give my home away if I tried! All of my hard work to get ahead in life has not paid off.

This is too much worry, stress, and frustration for someone of my age.

My wife and I are on a fixed income. We can't just pick up and start over again. We would like to be relocated while the clean up is being done. We would also like to be monetarily compensated so that we can move to an area where it is safe to live, and where I will feel safe allowing my great grand-children to play in the yard. As tax paying citizens, don't you agree that we need to live our final days without worrying if the contamination is going to come back again and cause us more damage than just the devalue of our property? THE LOSS OF OUR LIVES!

Sincerely

Marter V. Williams

Martin V. Williams

Clara Williams

Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, VA 23219

Dear Mrs. Walters:

My research on lead has made me painfully aware of the harmful effects lead can have in the body, both to children and adults. I grew up in this block and as an adult decided to purchase here. I shiver to think of the hours I and my brothers spent playing in the dirt which is now the Effingham playground and in the contaminated dirt of my own backyard only 300 feet away on Henry Street. The house I currently live in is 50 feet away, which is too close to the foundry to be anything less than fully contaminated. I am extremely concerned for my child, my nieces, nephews and their young friends that frequently play in the Riddick lots. In fact I now prefer that they don't play in the yard at all, especially the younger ones.

The knowledge I have gained since May 5th has destroyed the joy of owning the house I built. It has killed my desire to landscape or eat the vegetables from my mother's garden. Even staying indoors is not putting me and my family out of harms way, since I know lead can travel through household dust and can be imbedded in the carpet. For this reason I am requesting that the EPA and DWM take samples inside of my house as well as the crawl space.

For the Environmental Protection Agency and the Department of Waste Management to remove 12 inches of soil at the north boundary of my fence because of contamination but leave my yard untouched and assure me my lot is safe shows an obvious lack of concern for my health.

If the environment around me is not safe now, I can not imagine remaining in my home during or after the clean up. To protect my health and the health of my family I feel the best alternative is for the EPA, DWM or ABEX to relocate my family and proceed with the best alternative to insure the health of future generations living in this area.

Sincerely,

Ayrone Riddick 1720 Green Street Portsmouth, VA 2370 (804) 397-7276

cc. Kim Hummel
EPA Project Officer

LeAnne Nurse Community Relations Coordinator EPA Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, VA 23219

Dear Mrs. Walters:

The Environmental Protection Agency, the Department of Waste Management and State/City Officials involved in policy writing for hazardous areas need to seriously evaluate their current procedures.

After reading several of your documents and administrative records, it appears the main focus was on price and ease of implementation. You did not address what I as a homeowner would be left with after the excavation.

- Unsalable property because of a negative stigma.
- b. Property with possible deed restrictions that will effect what I or future owners can or can't do on the property to insure our health.
- c. Hesitation by lending institutions to make loans for home improvements or loans to potential buyers. {I have already received 2 loan rejections.}
- d. Because of the lands instability and location in a flood zone, excavating a substantial amount of soil from around and beneath my home would leave my house structurally unsound.

I am extremely disappointed with the mailing system used by the EPA and the DWM. Both agencies are designed to protect the environment and public health from toxins. Neither the EPA or the DWM have been able to explain or justify why the "interested persons" mailing list began and ended with a Civic League sign up sheet. It should not be difficult to realize that everyone does not attend Civic League meetings or read cover to cover the local newspaper. A city directory or area map, {both at your disposal} would have given you the names/addresses of the concerned residents. It is amazing that MaeCorp., hired to do the actual excavation would be my first notice that a serious problem existed in my neighborhood.

Other areas of concern are:

- 1. Absence of a standard procedure or responsibility in regards to warning signs.
- Method for notifying the public of the Public Comment Period.
- 3. The system for setting up and maintaining public records. {In reading the volumes of information at the library the reports state contradictions, they are not in chronological order nor are they grouped together. One Feasibility Study is in one book another is located in another, the years and references are scattered from book to book making it difficult to follow or understand.}
- 4. Time it takes to get test results. {Some test were performed as early as 1984 but the final results were not completed until February of 1992.}
- 5. The lack of responsibility by state and city officials to notify the public of a potential danger. It was very disturbing to read in the "Community Relations Plan", submitted by the Department of Waste Management that even though city officials were aware of the problems that lead can cause, especially in "that youth, several officials said removal action done between 1986 and 1989 caused more problems than it solved," also some were very concerned that negative, or unfair, media coverage would hurt revitalization or economic development efforts. City officials, said negative publicity would "make it tough to promote the area" for tourism or development again citing the competition with other area cities for tourism. Which is more important economic development or the health and well being of the citizens they were elected to serve??

Trust is hard to gain and even harder to rebuild. It is a sad occasion when the people you elected to look out for your best interest decide that the most important interest is money and have that opinion printed for all to see. With all of the above in mind I am expressing the best interest for me and my family by saying that I feel the best alternative would be for the Environmental Protection Agency, Department of Waste Management, ABEX or any of the responsible parties to relocate my family and the surrounding families. I hope serious attention will be given to the issues in this letter to avoid jeopardizing the health of others and losing future tax payers.

Tyrine Riddick 1720 Green Street Portsmouth, VA 23704 (804) 397-7276

cc. Kim Hummel
EPA Project Officer

LeAnne Nurse Community Relations Coordinator
EPA

Kenneth R. Melvin VA House of Delegates

Norman Sisisky U.S. House of Representatives

Charles R. Robb Russell Senate Office Building Douglas Wilder Office of the Governor

William S. Moore, Jr. VA House of Delegates

Johnny S. Joannou VA State Senate

John W. Warner U.S. Senate

May 16, 1992

Jamie Walters
Community Relations Supervisor
Virginia Department of Waste Management
101 N. 14th Street
Richmond, Virginia 23219

Dear Jamie Walters:

This letter is in response to the public's invitation to participate as stated in the Abex Superfund Site proposed remedial action plan summary fact sheet.

Alternative #7 chosen by Abex, should not be excepted by the Virginia Department of Waste Management, EPA or any other Department or persons whose job is to serve the residents within the Superfund Site. We were told that alternative #7 was chosen because it best met the nine criteria for selection under Superfund. It is in our opinion that all the criteria were not met, such as:

This prefered alternative is only cost effective to Abex. The homeowners will be left with a likely devaluation of property. The stigma of lead contamination of the homeowners property will make it undesirable to prospective buyers and to lending institutions. This prefered alternative may be acceptable by the State but, it is not acceptable to the residents.

The residents feel that there was not sufficient notification of the public meeting to discuss Abex's intentions. Those of us who were not notified were also interested in attending the public hearing. This alternative did not even consider correcting the contamination of the soil in the crawlspaces underneath the houses. Some people were told that their pets could be put into kennels, yet we would remain home throughout this cleanup process.

The feasibility to implement this process is not acceptable to the residents whose properties are affected. The investigation findings revealed that dumping of the contaminated waste only took place on the vacant lot beside the factory. It also revealed high concentrations of lead were found near the surface in some areas at the distant end of the radius and even outside of the circle dentified around the site. If contamination settled in these extreme locations from the air then it seems logical to us that contamination throughout the circle should be as great or greater as that found at the boundaries. The study shows some areas closest to the site to have less contamination near the surface yet more dangerous levels further down. It is obvious to us that the newer home construction in

safe. It is normal to spread topsoil when a house is built, but this spreading of top soil is not acceptable for correcting lead contamination. The prefered alternative proposes to inconvenience these residents twice, first to remove the contaminated soil closest to the surface, then come back to remove the rest later. Abex may point out that cleanup should start immediately due to the threat and danger of exposer. Where was the concern when knowledge of these findings were not revealed to the residents until after spring vegetable and flower gardening had started? Where was the concern when a fresh new baseball diamond was allowed to be cut out in the lead contaminated playground exposing a track of uncovered dirt for children to slide in?

The homeowners are responsible enough to limit their exposer to the land now that finally they have been informed of the contamination. The cleanup of our property can be delayed long enough for an alternative that is more favorable to us to be considered. This cleanup started in 1986 six years ago, and it seems as though nothing was done between 1988 and 1991. Starting immediatly seems to be Abex's way of rushing us into an alternative that is prefered by them because it is cheeper for them.

Alternative #7 is not prefered by us because it involves a great amount of exposer to the residents. Alternative #3 would be more prefered by all residents since it calls for offsite treatment of the contaminated soil. But even this alternative calls for the residents to be present during removal. The government monitors safety in the work place for employees of Maecorp during the removal, and the only way that we can be safe is not to be living in the work place when the work is going on.

We favor an alternative that will not expose us to even more contamination than we have already been exposed to due to the non environmentally safe practices performed by Abex. We deserve an alternative that will monetarily compensate us for our property investments that will surely be shattered when this is all over.

Concerned citizens living in the affected area of the Abex Superfund Site:

Sovie Stilling Sovie D. Martin Corney S. Riddieb Martin V. Whilips

718 Henry St.

1725 & Sfingham St.

1701 & Sfingham St.

720 Henry St.

717 Hours Ct.

(Continuation of Signatures)

Claza Williams	717 Henry St
Shewon E. Rudoli	709 Henry St
Caroly milcher	1724 Green St
Lila Bailey	715 Henry St.
Herbert Clarter	1800 Green St
Cefeler Shift	700 lingua ST
Hora B Clock	106 Kircle Sty
Da M. Outer	786 Lucknot.
Jarolyn Co. Cotton	1728 Theen Street
(lather Hoollight	1801 EffineHHM ST
Wyane C Womask	1810 thent
Marie M. Beam	728-730 Lincoln St.
Hilliam 2 William.	1705 EFFINENTARIOTE
Mary & Walker	1867 8 gfe rykum 57
Island Selline	1720 Green St
Jugent Durks Si	1807 Effinghow St
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13 Freedom Court Portsmouth, Virginia 23701 July 31, 1992

Ms. Leeann Nurse Community Relation Coordination United States Environmental Protection Agency Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

Re: 716 Lincoln Street/718 Lincoln Street

Portsmouth, Virginia 23704

Dear Ms. Nurse:

When my wife and I first purchased this property we felt that we had made a great investment and a nice income for us in our golden years to come. We even thought that after we both retired we could sell our present home and live in the two-family apartment building of our little nestegg. Now since we have learned about the hazardous waste of lead contamination on the property, we have had to put our plans on hold because the City of Portsmouth cannot decide on what to do. We had been remodeling 718 Lincoln Street. A new kitchen and a new heating system is sitting in the middle of the floor. We just do not know what to do! We saved money just to improve our property. Now, where do we go? What do we do? Do we finish or do we stop? We now have a tenant in 716 Lincoln Street, we have an obligation to this tenant. We are responsible for her! Where will she go? If she leaves this apartment, then we are stuck with paying the Who wants to stay in a CONTAMINATED AREA? If we had considered selling this property on Lincoln Street the property value has or will decrease. For the past few months I have been at my wits end. This is stressing me out! We argue because we just do not know what to do, or where to turn. From month to month money gets shorter, we are in the middle.

We were trying to move forward this year but now this happened. We were in the process of building a garage out back. We have put hard earned money and energy trying to improve our property, now what! I feel as a tax paying citizen, we deserve some answers to the LEAD CONTAMINATION SITUATION on what the City or Government plans to do. We need HELP with this situation. The EPA has a stress team to handle problems like these. We are not the only ones who need the assistance, our lives have been put on hold. In my personal opinion, I feel that one solution is to cement all the properties to control the contamination problem, then buy us HOMEOWNERS out or give us some type of funding to help ensure our property value. As a tax paying citizen I will never feel satisfied or feel safe about being a homeowner or landlord in this area. I personally would like to be compensated for our property. Thanks for your time and consideration. We will be waiting for a response from you. Again Thanks.

Sincerely,

Mr. Ernest Hinton, Sr.

FREDERICK H. WINSTON (1853-1898) SILAS H. STRAWN (1891-1948) 35 WEST WACKER DRIVE CHICAGO, ILLINOIS 80801-9703

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July 10, 1992

VIA EXPRESS COURIER

Ms. Ann Troutman Superfund Community Relations Virginia Department of Waste Management 101 N. 14th Street Richmond, Virginia 23219

Re: Abex Corporation Site. Portsmouth Virginia

Dear Ms. Troutman:

We have briefly reviewed the justifications which allegedly support EPA and VDWM's selection of a new preferred remedial alternative for the Abex Corporation Superfund Site and hereby submit the following written comments. These comments and attachments incorporate by reference other documents which are currently part of the Administrative Record and are submitted to and thus, are also incorporated into the Administrative Record. These comments also incorporate by reference the written comments and attachments previously submitted by Pneumo Abex on May 28, 1992. Due to the circumstances as created by EPA, we hereby incorporate by reference into the Administrative Record other publicly available documents cited herein.

I. EXECUTIVE SUMMARY

On June 9, 1992, U.S. EPA ("EPA") and the Virginia Department of Waste Management ("VDWM") extended the deadline for submitting public comments on Proposed Plan for Remedial Activities at the Abex Corporation Site located in Portsmouth, Virginia (the "Site"). On June 10, 1992, Pneumo Abex was informed by EPA that it was now considering a different remedial alternative than that previously set forth in the Proposed Plan. The only information that Pneumo Abex received regarding the new alternative was that it required the excavation of all 500 mg/kg or greater lead contaminated soils to the water table.

It was not until July 8, 1992, when Pneumo Abex finally met with EPA and VDWM, that it finally learned the basis for the change in preferred remedial alternatives. The reason given by EPA

Joseph G. Homsy July 10, 1992 Page 2

for change was that the previous preferred remedy, excavation of all site-related soils exceeding 500 mg/kg lead in the top two feet and the excavation of all site-related soils in excess of 5,000 mg/kg lead to the water table, had received negative public comments from local residents and was contrary to a recent Memorandum from EPA Headquarters.

Pneumo Abex has reviewed both the public commentary in the Administrative Record and the EPA Headquarters Memorandum. As a preliminary matter, Pneumo Abex hereby protests EPA and VDWM's failure to disclose their justification for selecting a new preferred remedial alternative until two days before the public comment deadline. This failure essentially precluded Pneumo Abex from submitting fully informed comments and denied it the opportunity to thoroughly research the various issues raised. Accordingly, Pneumo Abex hereby requests either a revised Proposed Plan setting forth the basis of the new preferred alternative be submitted or that the public comment period be briefly extended so that additional comment on the new proposal can be added to the Administrative Record.

with respect to negative public comments from local residents, it is quite apparent that the overwhelming majority of these comments are primarily driven by the common-law type allegations of local residents regarding their property. In fact, the remediation of the Abex Lot and Holland Property are barely mentioned in these comments, if at all. Accordingly, the comments from local residents are weefully inadequate as a basis for applying a remedy to the Abex Lot and Holland Property.

With respect to the EPA Headquarters Memorandum, fax dated July 8, 1992, it is quite clear that EPA cannot rely on it because it is simply inapplicable to the Abex Site. For example, the Memorandum states that the cleanup level proposed is based on the direct contact threat posed by the Site. However, the soil at the Site does not pose a "direct contact threat" since dermal absorption of lead is minuscule. As set forth in the Baseline Risk Assessment, the major pathway of exposure is indirect, resulting ultimately in exposure through the ingestion route. Secondly, by its very own terms, the Memorandum only applies to lead soil cleanups in residential areas. The Abex Lot and Holland Property, however, have been designated for industrial/light commercial use for the last one hundred years and are unlikely to be redesignated as residential in the foreseeable future.

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II. BACKGROUND

On April 29, 1992, EPA and VDWM issued a Proposed Plan for Remedial Activities at the Abex Corporation Site. Prior to that, Pneumo Abex agreed to remediate certain areas of surface contamination on an expedited basis and has been historically cooperative with the Government on all issues of non-trivial risk. In the Proposed Plan, EPA and VDWM identified a preferred alternative for the Site which required excavation of all site-related soils exceeding 500 mg/kg lead in the top two feet and the excavation of all site-related soils in excess of 5,000 mg/kg lead to the water table. The estimated cost of this remedial alternative was \$16.2 million.

May 28, 1992, based upon a review of Administrative Record and the Proposed Plan, Pneumo Abex Corporation submitted written comments to VDWM regarding the proposed remedial plan. These written comments argued that EPA and VDWM's selection of the preferred alternative as it related to certain industrial/light commercial areas of the site was unsupported by the Administrative Record, inconsistent with the NCP and contrary to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. \$\$ 9601 et seq. Pneumo Abex hereby incorporates by reference and reavers its prior written comments as if fully set forth herein. Any documents referenced in these comments, if not already included in the Administrative Record are hereby incorporated by reference and should be included Administrative Record.

On June 9, 1992, based on requests by several citizens for additional time to comment on the Proposed Plan, EPA and VDWM extended the public comment period until July 10, 1992. On June

The written comments also demonstrated that in selecting the preferred alternative, EPA and VDWM disregarded the recommended remedial alternative provided for in the Remedial Investigation/Feasibility Study prepared by Pneumo Abex Corporation for the Abex Corporation Site. The recommended remedy, identified as Alternative II, Case 1 in the Feasibility Study and Alternative 2 in the Proposed Plan, was supported by both the data generated in the Remedial Investigation as well the risk analysis conducted pursuant to the Baseline Risk Assessment. EPA's recommended remedy, on the other hand, disregarded the substantive basis provided in the above documents and relies instead on unsupported rationales.

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10, 1992, Pneumo Abex requested from Wendy Miller, Assistant Regional Counsel for U.S. EPA, a meeting with EPA and any other involved agencies regarding the future direction of the Abex Corporation Site. See Correspondence from Joseph G. Homsy, on behalf of Pneumo Abex, to Wendy A. Miller, dated June 15, 1992. This request was granted and a meeting was scheduled for June 29, 1992.

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During this conversation, Ms. Miller requested that Pneumo Abex submit written comments with respect to EPA and VDWM's decision to reevaluate its preferred alternative in Proposed Plan. More specifically, Ms. Miller indicated that EPA and VDWM were considering changing the preferred remedial alternative to one which would excavate all site-related soils exceeding 500 mg/kg in lead content "to depth." In a follow-up letter, dated June 15, 1992, Pneumo Abex requested that EPA specifically identify the areas where the reevaluation of the final remedy was taking place. See Correspondence from Joseph G. Homsy, on behalf of Pneumo Abex, to Wendy A. Miller, dated June 15, 1992. A response to this request was not received by Pneumo Abex until July 8, 1992, two days before the public comment period closed. See Correspondence from Wendy A. Miller to Joseph G. Homsy, dated June 29, 1992, received by Winston & Strawn on July 8, 1992.

On June 22, 1992, Ms. Miller informed Pneumo Abex that the June 29, 1992 meeting was being rescheduled to July 8, 1992. See Correspondence from Wendy A. Miller to Joseph G. Homsy, dated June 29, 1992, received by Winston & Strawn on July 8, 1992. During this conversation, Pneumo Abex informed Ms. Miller that the scheduled meeting date was only two days before the July 10, 1992 public comment deadline and that Pneumo Abex would have insufficient time to formulate any meaningful comments. Ms. Miller responded that because EPA and VDWM's new preference was very similar to some of the alternatives set forth in the Proposed Plan, Pneumo Abex had a sufficient basis to formulate appropriate comments.

On July 8, 1992, a meeting was held at EPA Region III Headquarters in Philadelphia between representatives of Pneumo Abex and representatives of EPA and VDWM. At the meeting, Pneumo Abex specifically requested that EPA finally provide Pneumo Abex a basis for changing its preferred remedy. EPA and VDWM responded that their sole basis was adverse public reaction to the initial proposed plan and a memorandum from EPA Headquarters recommending that lead-contaminated soils at the Abex Corporation Site be excavated to a level of 500 mg/kg down to the maximum depth of the water table. Upon receipt of this information, Pneumo Abex

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requested that EPA grant it an extension over the weekend so that Pneumo Abex meaningfully comment on the basis the new preferred remedial alternative. This request was denied by EPA.

III. Comments

A. EPA and VDWM Have Failed to Give Adequate Notice of the Basis of their Decision to Select a New Preferred Remedial Alternative.

As set forth above, EPA and VDWM have never provided Pneumo Abex, or any other member of the public for that matter, a meaningful opportunity to examine and then comment on the basis of their decision to select a new preferred remedial alternative at the Abex Corporation Site. To suppose, as Ms. Miller does in her letter received on July 8, that the information provided in the Proposed Plan presents a sufficient basis with which to fashion appropriate comments simply misses the mark.

In the instant case, the Proposed Plan does not support the selection of a remedy that requires excavation to a level of 500 mg/kg down to the maximum depth of the water table. Instead, the Proposed Plan does the opposite; it unequivocally rejects the two remedial alternatives (Alternatives 3 and 4) which resemble EPA and VDWM's apparent new preferred remedial alternative. For example, EPA and VDWM partially rejected Alternatives 3 and 4 in favor of Alternative 7 because while all three alternatives offered similar risk reductions, Alternatives 3 and 4 cost twice as much

^{2/} Alternative 3 - Surface and Subsurface Soil Excavation, Off-Site Treatment/Disposal

All site-related soil exceeding 500 ppm lead would be excavated, treated and disposed off-site. This alternative would include excavating and treating soils on the Abex lot, McCready lot and surrounding areas. The estimated cost is \$37.8 million.

Alternative 4 - Surface and Subsurface Soil Excavation, On-Site Treatment and Off-Site Disposal

All site-related soil exceeding 500 ppm lead would be excavated, treated on-site and disposed of off-site. The cost of this alternative is \$29.5 million.

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as Alternative $7.\frac{3}{}$ Moreover, of all the remedial alternatives evaluated, Alternatives 3 and 4 caused the most significant disruption of the daily routine of nearby residents.

Based on the foregoing, Pneumo Abex is utterly perplexed as to how a remedy that costs twice as much as the preferred remedy, causes the greatest degree of disruption to the community and offers no significant gain in overall protection of human health and the environment, long-term effectiveness and permanence or reduction of toxicity, mobility or volume through treatment can suddenly become the new preferred remedy. Accordingly, Ms. Miller's suggestion that Pneumo Abex could meaningfully comment on EPA and VDWM's new preferred remedial alternative is just plain wrong.

In fact, it was not until Pneumo Abex met with EPA and VDWM on July 8, 1992 that the apparent justifications for the change in proposal were finally revealed. As shown above, until that date, Pneumo Abex had simply no inkling of why EPA and VDWM were changing the remedy and therefore, could not prepare any comments either in preparation for the meeting or for submission to the Administrative Record. As far as Pneumo Abex knew, any remedy which resembled Alternatives 3 or 4 was not a preferred remedy. Therefore, when EPA and VDWM withheld their justifications for selecting a more costly and no more effective remedy until the last moment, EPA and VDWM essentially shielded their decision-making process from any meaningful public comment.

Based on the foregoing, Pneumo Abex hereby protests EPA and VDWM's failure to disclose their justification for selecting a new preferred remedial alternative until two days before the deadline for public comment. There is simply nothing in the Proposed Plan, Administrative Record or Public Comment Notices which indicates otherwise. If anything, Pneumo Abex agrees with EPA and VDWM's prior assessment of that the type of remedy

Alternative 7 is expected to be similar in permanence and long-term effectiveness to Alternatives 3 and 4. While some soil with elevated lead levels would remain in place at depths over two feet under this alternative, soil movement during any long-term redevelopment activity is not expected to result in an unacceptable health risk.

Abex Superfund Site Proposed Plan, at 10 (emphasis added).

In the Proposed Plan, EPA and VDWM stated that:

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currently contemplated is too expensive, too disruptive and offers little in the way of additional protection to human health and the environment. Accordingly, Pneumo Abex hereby requests that EPA and VDWM either submit a revised Proposed Plan setting forth the basis of the new preferred alternative or that the public comment period be briefly extended so that additional public comment on the justification for the new proposal can be added to the Administrative Record.

B. EPA and VDWM Have Failed to Adequately Justify the Basis of Their Decision to Select a New Preferred Remedial Alternative.

At the July 8, 1992 meeting, Pneumo Abex was asked to comment on a remedial alternative requiring the removal of all soil containing more than 500 mg/kg of lead, to any depth down to groundwater. The apparent basis for the new remedial alternative was that the preferred remedy in the Proposed Plan had generated an adverse public reaction and that a recent guidance from EPA Headquarters justified excavating lead contaminated soil to the water table. With the caveat that two days is simply insufficient time to research and formulate meaningful written comments, Pneumo Abex will address each basis in turn.

1. Public Reaction

The first justification advanced by EPA and VDWM during the July 8 meeting was that great deal of negative public comment from area residents had been received during the public comment period. EPA and VDWM stated that these area residents requested a more aggressive cleanup strategy so that residents could be "perfectly safe" in their backyards and have the greater degree of freedom in their actions.

As a preliminary matter, the reality of the situation is that the removal of lead-contaminated soil below a depth of a few inches to 12 inches in depth is simply not necessary to protect human health. As set forth in the Baseline Risk Assessment, the principal route of potential exposure to the most vulnerable population, i.e., small children, is through the indirect contact route of soil ingestion (soil to hand to mouth, or soil to object to mouth, or soil to hand to object to mouth). Accordingly, there can be no exposure to lead in soil below a very shallow depth.

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As also shown in the Baseline Risk Assessment, other routes of exposure are very minuscule at this site. For example, inhalation of dust is possible (although negligible), but again dust comes only from the surface of the soil. Ingestion of food grown in contaminated soil provides the only indirect exposure to subsurface soil. Once again, however, exposure here is limited to the depth of plant roots, generally less than 12 inches.

In the Proposed Plan EPA and VDWM recommended excavating all lead contaminated soil in excess of 500 mg/kg to two feet in depth and all soil containing lead in excess of 5,000 mg/kg to the water table. Even this remedy, which Pneumo Abex still maintains is excessive, is preferable to remedy currently under consideration given the human health risks outlined above. It is even more troublesome when considers EPA and VDWM's statement in the Proposed Plan that excavating all lead contaminated soil in excess of 500 mg/kg to the water table is not significantly more protective of human health and the environment than excavating to two feet.

In addition, even if the new preferred remedy were more protective, which it is not, it still creates unnecessary disruption and danger to local area residents. For example, subsurface soil conditions in the vicinity of the Site consist of approximately three to five feet of fill (sand, rubble and debris) underlain by granular, non-cohesive soils. See Affidavit of Bradley O. Holmberg. Moreover, groundwater levels in the area are generally within a depth of 3 to 4 feet below surface grade and the footings or foundation bases of houses or other such structures are likely to be in a depth range of 2 to 5 feet from the ground surface. Id.

Based on the foregoing, to excavate to the water table throughout this area would be to create inadvisable dangers. Because structures with spread footings or similar foundations derive a considerable portion of their bearing capacity from the weight of the soil above the footing level, excavating to the water table near these structures could pose significant risks. In particular, if excavation proceeds below the footing level, caving, sloughing and loss of bearing support could occur. Therefore, shallower excavation, such as that originally proposed by Pneumo Abex or by EPA and VDWM in the Proposed Plan would be preferable, considering the structural risks involved.

Finally, it should be noted that the new alternative proposed by EPA and VDWM requires remedial efforts much more extensive than that contemplated by the residents. As set forth above, the vast majority of the residents are concerned with the

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level and depth of lead contamination in open areas on their property. The new proposal, however, apparently also calls for cleanup of deep soils in commercial/industrial areas to levels required for residential surface soils. There is simply no health-based reason for such cleanup since exposure even to surface soils in commercial/industrial areas is very limited, and is zero to subsurface soils.

Moreover, the commercial/industrial areas represented by the Abex Lot and the Holland Property are more conducive to institutional controls and deed restrictions that could effectively control future exposure risks. While it is true that EPA has expressed a preference for treatment in Superfund remediations, EPA's own Records of Decision ("RODS") are replete with evidence of sites where institutional controls have been effective. In addition, even if construction or demolition activities were to occur in the above commercial/industrial areas in the future, such activities are generally licensed or controlled in some way by local permits. They are also generally carried out in such a fashion as to segregate deeper soils from surface soils, in order to allow replacement of the usually more fertile surface soils back on the surface after completion of the activities.

Insofar as any of the above activities are licensed, it is entirely feasible, reasonable and good common sense to require as a condition of licensing that special efforts be made to segregate soils deeper than some pre-specified depth. Alternatively, soil testing at certain depths could be required. Insofar as segregation of soils is already performed as good practice, this practice can be encouraged and also prevents mixing of soils from depth with surface soils.

Based on the foregoing, it is clear that the presence of lead at high levels in deep soil (i.e., below about 1 to 2 feet) in the commercial/industrial areas does not prevent the use of the area and does not present an unacceptable health risk. In the absence of exposure pathways, the mere presence of lead is quite irrelevant. For unusual activities that disturb the deep soil,

Pneumo Abex hereby incorporates by reference all RODs which allow institutional controls and deed restrictions as an accepted method of control. As stated earlier, due to the limited amount of time that Pneumo Abex had to comment on the basis of EPA and VDWM's new preferred remedy, Pneumo Abex has not been able to physically incorporate all of these documents. However, Pneumo Abex will supplement the record with copies of these documents.

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modifications to the activities may be required (e.g., segregation of the deep soil), but no activity would actually be prevented.

2. Memorandum from OSWER entitled "Lead Cleanup Standard Application at the Abex Site in Portsmouth, VA."

The second apparent basis for EPA and VDWM's decision to require excavation of all site-related lead "to depth" was a Memorandum from EPA Headquarters entitled "Lead Cleanup Standard Application at the Abex Site in Portsmouth, VA." This memorandum was not made available to Pneumo Abex until noon on July 8, 1992 and thus, it is impossible for Pneumo Abex to comment on the information contained therein in any detailed or informed manner. Nonetheless, Pneumo Abex offers the following written comments, under protest, regarding EPA and VDWM's reliance on the memorandum.

First, it is Pneumo Abex's position that the memorandum is misleading in several respects, and appears to have been written with a fundamental misunderstanding of the nature of the threat posed by lead in soil. For example, the title of the memorandum appears to suggest that it is discussing a "Lead Cleanup Standard." To our knowledge, there is no standard for soil lead cleanup. All that is currently available is a lead cleanup guidance memorandum that discusses how to estimate suitable lead cleanup levels by use of the EPA uptake/biokinetic model (based on assumptions about chronic soil ingestion in children). See U.S. EPA, Update on OSWER Soil Lead Cleanup Guidance (Aug. 29, 1991). This model was used by Pneumo Abex in the Baseline Risk Assessment and its proper application supports the remedy set forth in the RI/FS.

Second, the term "direct contact threat" is used throughout the document, but is not defined. Lead contamination in soil does not pose a "direct contact threat" since the risk of the exposure pathway of dermal absorption of lead is minuscule. As set forth above, the significant pathway of exposure as to risk is indirect, relates to small children, and is the result, ultimately, of exposure through the ingestion route. Therefore, even though the memorandum purports to pertain to the Abex Corporation Site, in reality it is simply inapplicable scientifically justified EPA Risk Guidance.

In addition, Point 4 of the Memorandum is simply a sequence of non-sequiturs. Point 4 of the Memorandum first states that EPA has no general guidelines for applying a direct contact standard to specific depths. However, in this case there is no

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"direct contact standard," merely guidance for obtaining suitable lead cleanup levels by using suitable assumptions about soil ingestion rates in children and using the EPA uptake/biokinetic model. See U.S. EPA, Update on OSWER Soil Lead Cleanup Guidance (Aug. 29, 1991).

EPA is said to have considered surface contamination to range from one to twelve feet in depth at other sites. This may be perfectly appropriate for other sites, with other contaminants. For example, some contaminants pose a direct contact threat simple contact with the contaminant may result in dermal exposure sufficient to pose a hazard through dermal absorption, so that access to contaminated soil must be prevented. However, in this context it is irrelevant since lead does not pose a direct contact risk of such a nature, there is negligible hazard from digging into contaminated soil, and direct contact with that soil does not pose a threat. The hazard from lead contaminated soil comes from ingestion by a limited population of small children of substantial quantities, probably over a substantial period (months to years).

Another difficulty with the Memorandum is that it does not take into account whether the groundwater table constitutes a limiting factor for construction activities. The actual limiting factors on construction activities will depend on the type and conditions of construction, local building codes, and other factors.

^{3/} See generally, Centers for Disease Control, Preventing Lead Poisoning in Young Children (Oct. 1991). See also ATSDR, Toxicological Profile for Lead, U.S. Department of Health and Human Services, Public Health Service (June 1990); ATSDR, <u>Toxicological</u> Profile for Lead, Draft Update for Public Comment (Oct. 1991); EPA, Air Quality for Lead. Vols. I-IV, EPA-600/8-83/028aP-028dF; EPA Risk Assessment Guidance for Superfund, Vol. 1: Human Health Evaluation Manual (Sept. 29, 1989); IARC, IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol 23 (July 1980); Minnesota Pollution Control Agency, Soil Lead Report to the Minnesota State Legislature: A Statement by the Minnesota Pollution Control Agency and the Minnesota Department of Health (June 1987); Minnesota Department of Health, Supplement to: Soil Lead Report to the Minnesota Legislature (May 1988); WHO, Environmental Health Criteria 85. Lead - Environmental Aspects (1989) WHO, Environmental Health Criteria 4, Lead (1977). foregoing publicly available documents are hereby incorporated by reference into the Administrative Record.

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The final statement that "depth to the water table ... appropriate ... against a direct contact threat for this site" does not follow, since the 500 mg/kg cleanup level is not against a direct contact threat and no direct contact threat has been established for this site. This final statement purports to be site-specific by including the wording "appropriate .. for this site." but the discussion has neglected to take account of site-specific factors (for example, a large part of the site is non-residential). In fact, this last statement amounts to a declaration that any cleanup level derived for surficial soil should be applied to a depth of 12 feet or to the groundwater table (whichever is shallower), no matter what the justification for the cleanup level.

This final factor cannot be over-emphasized or overlooked. In this regard it is important to note that both the 1991 OSWER directive and the 1992 OSWER Memorandum refer only to lead cleanup levels or depths in residential areas. The question then becomes if EPA never intended to make a distinction between cleanup levels in residential areas and cleanup levels in industrial areas, why did it make such a distinction in the first place. The answer is that risk is based on exposure and that children are more likely to be exposed to contaminants in residential areas than in industrial areas. To ignore this distinction is to ignore the basic concepts of risk analysis.

In addition, while it is true that land use designations sometimes change, that is not the case with respect to the Abex Lot and Holland Property. These parcels have been designated for industrial/light commercial use for over one hundred years. As further evidenced by the City's intent to develop the vacant land to east of the former foundry as a commercial center, it is unforeseeable that the current land use designations in this area will change (Sae attached development plans for Portcentre Commerce Park).

Moreover, as an example, one need only examine the attached ROD for the Bunker Hill Superfund Site to see how far the cleanup levels and depths at the Abex Corporation Site have degenerated from accepted risk analysis utilized to remediate a residential areas elsewhere in the country into blatant arbitrariness here. At the Bunker Hill Site, risk

<u>See</u> Record of Decision, Bunker Hill Mining and Metallurgical Complex, Residential Soils Operable Unit, Shoeshone County, Idaho (August 1991).

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characterization was based on observed childhood population blood lead levels and environmental media lead concentrations collected over seventeen years. This information was then used in EPA's integrated uptake/biokinetic dose response model to determine acceptable cleanup levels. The remedy selected using this procedure combined a 1,000 mg/kg cleanup level with institutional controls and excavation of contaminated soil up to 12 inches in depth followed replacement of clean fill and gravel.

In the instant case, Pneumo Abex also followed all accepted risk assessment and management guidelines to characterize the risk and then formulate an appropriate remedy. The cleanup level chosen focused on the type of property affected (residential versus non-residential) and the likelihood that highly exposed children would come into contact (primarily through ingestion) with sufficient quantities of lead contaminated soil such that they might have blood lead concentrations exceeding 10 ug/dl. PPA and VDWM have apparently decided to disregard the conclusions of the Baseline Risk Analysis in favor of an arbitrary remedy which requires the cleanup level of 500 mg/kg to be applied across the site regardless of land use and excavation of contaminated soil to depth regardless of likelihood of exposure. This is simply not good science and has disastrous policy implications.

C. Technical Clarifications

1. Superfund Site Proposed Plan (Proposed Plan. 1992)

Pneumo Abex would also like clarify several inaccuracies currently included in the Administrative Record. The first of these may be found in the Abex Superfund Site Proposed Plan which contains several misrepresentations of what the Baseline Risk Assessment and RI/FS concluded. These misrepresentations should be corrected, since they communicate erroneous information. As discussed in U.S. EPA Memorandum, Guidance on Risk Characterization for Risk Managers and Risk Assessors, (Feb. 26, 1992), "although a great deal of careful analysis and scientific judgement goes into the development of EPA risk assessments, significant information is often omitted as the results of the assessment are passed along..."

^{1/} See generally, Centers for Disease Control, Preventing Lead Poisoning in Young Children (Oct. 1991).

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^{1/} See generally, Centers for Disease Control, Preventing Lead Poisoning in Young Children (Oct. 1991).

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More specifically, "[o]ften when risk information is presented to the ultimate decision-maker and to the public, the results have been boiled down to a point estimate of risk. Such 'short-hand' approaches to risk assessment do not fully convey the range of information considered and used..." Further, "EPA risk assessors and managers need to be completely candid about confidence and uncertainty in describing risks...", and "Numerical risk estimates should always be accompanied by descriptive information carefully selected to ensure an objective and balanced characterization of risk in risk assessment reports and regulatory documents".

The foregoing guidance was clearly not adhered to in the instant case. For instance, on page four of the Proposed Plan, it is stated that "sampling and analysis ... downgradient of the Abex Lot has detected lead levels of 30 ug/l." This is incorrect. The detections of 24 ug/l and 31 ug/l lead were in monitoring well one (MW-1), which is in the Abex lot, not downgradient of it. It should be noted that the best scientific information memorialized in the RI/FS indicates that groundwater immediately under the Abex Lot is non-potable due to brackishness.

The Proposed Plan goes on to state that the primary exposure pathways of concern at the Site are incidental ingestion of soil and inhalation of dust. This is also incorrect. The primary exposure pathway was concluded to be ingestion of soil. It was concluded in the Baseline Risk Assessment, based on field data memorialized in the Remedial Investigation that inhalation of dust was a minor pathway. It is simply incorrect and without basis to characterize this pathway as a primary pathway.

In addition, neither the Integrated Uptake/Biokinetic model, nor the Baseline Risk Assessment concluded that children are exposed to an "unacceptable heath risk when lead concentrations in surface soil or dust exceed 500 mg/kg." What was actually concluded was, again based on field data contained within the RI Report, that "at soil concentrations of about 500 ppm, 5-15 percent of relatively highly exposed individuals (probably corresponding to less than 1 percent of all children) might have blood lead concentrations exceeding 10 ug/dl, and that "the cleanup concentration of 500 ppm should strictly be interpreted as an average over an area in which an individual might spend a large fraction of their time (for example, home and back yard)". Further, "this level applies for residential areas", and "in non-residential areas, the fraction of time individuals spend in contact with the soil is much smaller...a safe cleanup level is proportionately higher."

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2. Letter from Nancy Rios, Technical Support Section (3HW15), USEPA, Region Ill to Darius Ostrauskas, Remedial Project Manager, Superfund Remedial Branch, WA/WV Section (3HW24), Dated 4-23-92

Pneumo Abex would also like to offer written comments on certain misstatements made in a letter by Nancy Rios and included in the Administrative Record. It is stated in the letter by Ms. Rios that she reviewed the Baseline Risk Assessment. Apparently, the review was incomplete, since she evidently missed the sections of the Final Risk Assessment (dated February 25, 1992) that deal with exactly the topics she claims are missing.

For example, she states in her letter that the "risks associated with the other Site's contaminants of concern [i.e. TPHs in soil and VOCs and hydrocarbons in groundwater have not been properly assessed in the final human health assessment.' This is not correct. Total Petroleum Hydrocarbons ("TPH") have never been a contaminant of concern per se at the Site, as indicated in the letter. However, all the individual components of any TPH have been included in the risk assessment, since such individual components are analyzed in soil samples. This in fact is the approach recommended by Ms. Rios in the letter.

In addition, Tentatively Identified Compounds ("TICs") in both soil samples and groundwater were examined and eliminated from further consideration according to current EPA guidance in Sections 2.2.7 and 2.2.10 of the Risk Assessment. EPA, 1989. See Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual. Interim Final. OSWER Directive 9285.7-01a. September 29, 1989. VOCs in groundwater were also examined in Section 2.2.9 of the Risk Assessment. In that section, a bounding estimate was used to show that exposure to VOCs in groundwater was not significant and could be eliminated from further refinement. See Guidelines for Exposure Assessment, 57 FR 22888 (Friday May 29, 1992).

Secondly, on page 2 of her letter, Ms. Rios states in connection with the trace PAH found in dust samples on the Holland property "[a] risk assessment for inhalation of dust contaminated with PAHs was not provided in the final human health risk assessment". This is simply incorrect. Section 3.4 of the final Risk Assessment provides an exposure assessment for Workers at the Holland property site that is considerably more detailed and more conservative than the summary assessment provided by Ms. Rios in her letter. The risks arising from this exposure are detailed in

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full in Section 5.2.2 and Appendix tables of the Baseline Risk Assessment. Notwithstanding Ms. Rios's concerns regarding organic chemicals addressed in the Final Risk Assessment, the basis of EPA and VDWM's new (although still undefined) proposed remedy focuses on lead remediation.

Based on the foregoing discussion on the Administrative Record and EPA and VDWN's purported rationales for a still vague final remedial plan, it is evident that the final plan is not being driven by risk, science, law or regulation, but rather, by concerns which are clearly political and convenient (see attached newspaper articles) and therefore, inconsistent with the National Contingency Plan and CERCLA.

Submitted on Behalf of Pneumo Abex Corporation

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WRITER'S DIRECT DIAL NUMBER (312) 558-6364

July 10, 1992

VIA EXPRESS COURIER

Ms. Ann Troutman Superfund Community Relations Virginia Department of Waste Management 101 N. 14th Street Richmond, Virginia 23219

Re: Abex Corporation Site, Portsmouth Virginia

Dear Ms. Troutman:

We have briefly reviewed the justifications which allegedly support EPA and VDWM's selection of a new preferred remedial alternative for the Abex Corporation Superfund Site and hereby submit the following written comments. These comments and attachments incorporate by reference other documents which are currently part of the Administrative Record and are submitted to and thus, are also incorporated into the Administrative Record. These comments also incorporate by reference the written comments and attachments previously submitted by Pneumo Abex on May 28, 1992. Due to the circumstances as created by EPA, we hereby incorporate by reference into the Administrative Record other publicly available documents cited herein.

I. EXECUTIVE SUMMARY

On June 9, 1992, U.S. EPA ("EPA") and the Virginia Department of Waste Management ("VDWM") extended the deadline for submitting public comments on Proposed Plan for Remedial Activities at the Abex Corporation Site located in Portsmouth, Virginia (the "Site"). On June 10, 1992, Pneumo Abex was informed by EPA that it was now considering a different remedial alternative than that previously set forth in the Proposed Plan. The only information that Pneumo Abex received regarding the new alternative was that it required the excavation of all 500 mg/kg or greater lead contaminated soils to the water table.

It was not until July 8, 1992, when Pneumo Abex finally met with EPA and VDWM, that it finally learned the basis for the change in preferred remedial alternatives. The reason given by EPA

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for change was that the previous preferred remedy, excavation of all site-related soils exceeding 500 mg/kg lead in the top two feet and the excavation of all site-related soils in excess of 5,000 mg/kg lead to the water table, had received negative public comments from local residents and was contrary to a recent Memorandum from EPA Headquarters.

Pneumo Abex has reviewed both the public commentary in the Administrative Record and the EPA Headquarters Memorandum. As a preliminary matter, Pneumo Abex hereby protests EPA and VDWM's failure to disclose their justification for selecting a new preferred remedial alternative until two days before the public comment deadline. This failure essentially precluded Pneumo Abex from submitting fully informed comments and denied it the opportunity to thoroughly research the various issues raised. Accordingly, Pneumo Abex hereby requests either a revised Proposed Plan setting forth the basis of the new preferred alternative be submitted or that the public comment period be briefly extended so that additional comment on the new proposal can be added to the Administrative Record.

With respect to negative public comments from local residents, it is quite apparent that the overwhelming majority of these comments are primarily driven by the common-law type allegations of local residents regarding their property. In fact, the remediation of the Abex Lot and Holland Property are barely mentioned in these comments, if at all. Accordingly, the comments from local residents are woefully inadequate as a basis for applying a remedy to the Abex Lot and Holland Property.

With respect to the EPA Headquarters Memorandum, fax dated July 8, 1992, it is quite clear that EPA cannot rely on it because it is simply inapplicable to the Abex Site. For example, the Memorandum states that the cleanup level proposed is based on the direct contact threat posed by the Site. However, the soil at the Site does not pose a "direct contact threat" since dermal absorption of lead is minuscule. As set forth in the Baseline Risk Assessment, the major pathway of exposure is indirect, resulting ultimately in exposure through the ingestion route. Secondly, by its very own terms, the Memorandum only applies to lead soil cleanups in residential areas. The Abex Lot and Holland Property, however, have been designated for industrial/light commercial use for the last one hundred years and are unlikely to be redesignated as residential in the foreseeable future.

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II. BACKGROUND

On April 29, 1992, EPA and VDWM issued a Proposed Plan for Remedial Activities at the Abex Corporation Site. Prior to that, Pneumo Abex agreed to remediate certain areas of surface contamination on an expedited basis and has been historically cooperative with the Government on all issues of non-trivial risk. In the Proposed Plan, EPA and VDWM identified a preferred alternative for the Site which required excavation of all site-related soils exceeding 500 mg/kg lead in the top two feet and the excavation of all site-related soils in excess of 5,000 mg/kg lead to the water table. The estimated cost of this remedial alternative was \$16.2 million.

May 28, 1992, based upon a review of the Administrative Record and the Proposed Plan, Pneumo Abex Corporation submitted written comments to VDWM regarding the proposed remedial plan. These written comments argued that EPA and VDWM's selection of the preferred alternative as it related to certain industrial/light commercial areas of the site was unsupported by the Administrative Record, inconsistent with the NCP and contrary to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. §§ 9601 et seq. 1/ Pneumo Abex hereby incorporates by reference and reavers its prior written comments as if fully set Any documents referenced in these comments, if not forth herein. already included in the Administrative Record are hereby incorporated by reference and should be included in the Administrative Record.

On June 9, 1992, based on requests by several citizens for additional time to comment on the Proposed Plan, EPA and VDWM extended the public comment period until July 10, 1992. On June

^{1/} The written comments also demonstrated that in selecting the preferred alternative, EPA and VDWM disregarded the recommended alternative provided for the Remedial in Investigation/Feasibility Study prepared by Pneumo Abex Corporation for the Abex Corporation Site. The recommended remedy, identified as Alternative II, Case 1 in the Feasibility Study and Alternative 2 in the Proposed Plan, was supported by both the data generated in the Remedial Investigation as well the risk analysis conducted pursuant to the Baseline Risk Assessment. EPA's recommended remedy, on the other hand, disregarded the substantive basis provided in the above documents and relies instead on unsupported rationales.

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10, 1992, Pneumo Abex requested from Wendy Miller, Assistant Regional Counsel for U.S. EPA, a meeting with EPA and any other involved agencies regarding the future direction of the Abex Corporation Site. See Correspondence from Joseph G. Homsy, on behalf of Pneumo Abex, to Wendy A. Miller, dated June 15, 1992. This request was granted and a meeting was scheduled for June 29, 1992.

During this conversation, Ms. Miller requested that Pneumo Abex submit written comments with respect to EPA and VDWM's decision to reevaluate its preferred alternative in Proposed Plan. More specifically, Ms. Miller indicated that EPA and VDWM were considering changing the preferred remedial alternative to one which would excavate all site-related soils exceeding 500 mg/kg in lead content "to depth." In a follow-up letter, dated June 15, 1992, Pneumo Abex requested that EPA specifically identify the areas where the reevaluation of the final remedy was taking place. See Correspondence from Joseph G. Homsy, on behalf of Pneumo Abex, to Wendy A. Miller, dated June 15, 1992. A response to this request was not received by Pneumo Abex until July 8, 1992, two days before the public comment period closed. See Correspondence from Wendy A. Miller to Joseph G. Homsy, dated June 29, 1992, received by Winston & Strawn on July 8, 1992.

On June 22, 1992, Ms. Miller informed Pneumo Abex that the June 29, 1992 meeting was being rescheduled to July 8, 1992. See Correspondence from Wendy A. Miller to Joseph G. Homsy, dated June 29, 1992, received by Winston & Strawn on July 8, 1992. During this conversation, Pneumo Abex informed Ms. Miller that the scheduled meeting date was only two days before the July 10, 1992 public comment deadline and that Pneumo Abex would have insufficient time to formulate any meaningful comments. Ms. Miller responded that because EPA and VDWM's new preference was very similar to some of the alternatives set forth in the Proposed Plan, Pneumo Abex had a sufficient basis to formulate appropriate comments.

On July 8, 1992, a meeting was held at EPA Region III Headquarters in Philadelphia between representatives of Pneumo Abex and representatives of EPA and VDWM. At the meeting, Pneumo Abex specifically requested that EPA finally provide Pneumo Abex a basis for changing its preferred remedy. EPA and VDWM responded that their sole basis was adverse public reaction to the initial proposed plan and a memorandum from EPA Headquarters recommending that lead-contaminated soils at the Abex Corporation Site be excavated to a level of 500 mg/kg down to the maximum depth of the water table. Upon receipt of this information, Pneumo Abex

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requested that EPA grant it an extension over the weekend so that Pneumo Abex meaningfully comment on the basis the new preferred remedial alternative. This request was denied by EPA.

III. Comments

A. EPA and VDWM Have Failed to Give Adequate Notice of the Basis of their Decision to Select a New Preferred Remedial Alternative.

As set forth above, EPA and VDWM have never provided Pneumo Abex, or any other member of the public for that matter, a meaningful opportunity to examine and then comment on the basis of their decision to select a new preferred remedial alternative at the Abex Corporation Site. To suppose, as Ms. Miller does in her letter received on July 8, that the information provided in the Proposed Plan presents a sufficient basis with which to fashion appropriate comments simply misses the mark.

In the instant case, the Proposed Plan does not support the selection of a remedy that requires excavation to a level of 500 mg/kg down to the maximum depth of the water table. Instead, the Proposed Plan does the opposite; it unequivocally rejects the two remedial alternatives (Alternatives 3 and 4) which resemble EPA and VDWM's apparent new preferred remedial alternative. For example, EPA and VDWM partially rejected Alternatives 3 and 4 in favor of Alternative 7 because while all three alternatives offered similar risk reductions, Alternatives 3 and 4 cost twice as much

^{2/} Alternative 3 - Surface and Subsurface Soil Excavation, Off-Site Treatment/Disposal

All site-related soil exceeding 500 ppm lead would be excavated, treated and disposed off-site. This alternative would include excavating and treating soils on the Abex lot, McCready lot and surrounding areas. The estimated cost is \$37.8 million.

Alternative 4 - Surface and Subsurface Soil Excavation, On-Site Treatment and Off-Site Disposal

All site-related soil exceeding 500 ppm lead would be excavated, treated on-site and disposed of off-site. The cost of this alternative is \$29.5 million.

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as Alternative 7.2/ Moreover, of all the remedial alternatives evaluated, Alternatives 3 and 4 caused the most significant disruption of the daily routine of nearby residents.

Based on the foregoing, Pneumo Abex is utterly perplexed as to how a remedy that costs twice as much as the preferred remedy, causes the greatest degree of disruption to the community and offers no significant gain in overall protection of human health and the environment, long-term effectiveness and permanence or reduction of toxicity, mobility or volume through treatment can suddenly become the new preferred remedy. Accordingly, Ms. Miller's suggestion that Pneumo Abex could meaningfully comment on EPA and VDWM's new preferred remedial alternative is just plain wrong.

In fact, it was not until Pneumo Abex met with EPA and VDWM on July 8, 1992 that the apparent justifications for the change in proposal were finally revealed. As shown above, until that date, Pneumo Abex had simply no inkling of why EPA and VDWM were changing the remedy and therefore, could not prepare any comments either in preparation for the meeting or for submission to the Administrative Record. As far as Pneumo Abex knew, any remedy which resembled Alternatives 3 or 4 was not a preferred remedy. Therefore, when EPA and VDWM withheld their justifications for selecting a more costly and no more effective remedy until the last moment, EPA and VDWM essentially shielded their decision—making process from any meaningful public comment.

Based on the foregoing, Pneumo Abex hereby protests EPA and VDWM's failure to disclose their justification for selecting a new preferred remedial alternative until two days before the deadline for public comment. There is simply nothing in the Proposed Plan, Administrative Record or Public Comment Notices which indicates otherwise. If anything, Pneumo Abex agrees with EPA and VDWM's prior assessment of that the type of remedy

Alternative 7 is expected to be similar in permanence and long-term effectiveness to Alternatives 3 and 4. While some soil with elevated lead levels would remain in place at depths over two feet under this alternative, soil movement during any long-term redevelopment activity is not expected to result in an unacceptable health risk.

Abex Superfund Site Proposed Plan, at 10 (emphasis added).

In the Proposed Plan, EPA and VDWM stated that:

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currently contemplated is too expensive, too disruptive and offers little in the way of additional protection to human health and the environment. Accordingly, Pneumo Abex hereby requests that EPA and VDWM either submit a revised Proposed Plan setting forth the basis of the new preferred alternative or that the public comment period be briefly extended so that additional public comment on the justification for the new proposal can be added to the Administrative Record.

B. EPA and VDWM Have Failed to Adequately Justify the Basis of Their Decision to Select a New Preferred Remedial Alternative.

At the July 8, 1992 meeting, Pneumo Abex was asked to comment on a remedial alternative requiring the removal of all soil containing more than 500 mg/kg of lead, to any depth down to groundwater. The apparent basis for the new remedial alternative was that the preferred remedy in the Proposed Plan had generated an adverse public reaction and that a recent guidance from EPA Headquarters justified excavating lead contaminated soil to the water table. With the caveat that two days is simply insufficient time to research and formulate meaningful written comments, Pneumo Abex will address each basis in turn.

1. Public Reaction

The first justification advanced by EPA and VDWM during the July 8 meeting was that great deal of negative public comment from area residents had been received during the public comment period. EPA and VDWM stated that these area residents requested a more aggressive cleanup strategy so that residents could be "perfectly safe" in their backyards and have the greater degree of freedom in their actions.

As a preliminary matter, the reality of the situation is that the removal of lead-contaminated soil below a depth of a few inches to 12 inches in depth is simply not necessary to protect human health. As set forth in the Baseline Risk Assessment, the principal route of potential exposure to the most vulnerable population, i.e., small children, is through the indirect contact route of soil ingestion (soil to hand to mouth, or soil to object to mouth, or soil to hand to object to mouth, or soil to hand to object to mouth). Accordingly, there can be no exposure to lead in soil below a very shallow depth.

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As also shown in the Baseline Risk Assessment, other routes of exposure are very minuscule at this site. For example, inhalation of dust is possible (although negligible), but again dust comes only from the surface of the soil. Ingestion of food grown in contaminated soil provides the only indirect exposure to subsurface soil. Once again, however, exposure here is limited to the depth of plant roots, generally less than 12 inches.

In the Proposed Plan EPA and VDWM recommended excavating all lead contaminated soil in excess of 500 mg/kg to two feet in depth and all soil containing lead in excess of 5,000 mg/kg to the water table. Even this remedy, which Pneumo Abex still maintains is excessive, is preferable to remedy currently under consideration given the human health risks outlined above. It is even more troublesome when considers EPA and VDWM's statement in the Proposed Plan that excavating all lead contaminated soil in excess of 500 mg/kg to the water table is not significantly more protective of human health and the environment than excavating to two feet.

In addition, even if the new preferred remedy were more protective, which it is not, it still creates unnecessary disruption and danger to local area residents. For example, subsurface soil conditions in the vicinity of the Site consist of approximately three to five feet of fill (sand, rubble and debris) underlain by granular, non-cohesive soils. See Affidavit of Bradley O. Holmberg. Moreover, groundwater levels in the area are generally within a depth of 3 to 4 feet below surface grade and the footings or foundation bases of houses or other such structures are likely to be in a depth range of 2 to 5 feet from the ground surface. Id.

Based on the foregoing, to excavate to the water table throughout this area would be to create inadvisable dangers. Because structures with spread footings or similar foundations derive a considerable portion of their bearing capacity from the weight of the soil above the footing level, excavating to the water table near these structures could pose significant risks. In particular, if excavation proceeds below the footing level, caving, sloughing and loss of bearing support could occur. Therefore, shallower excavation, such as that originally proposed by Pneumo Abex or by EPA and VDWM in the Proposed Plan would be preferable, considering the structural risks involved.

Finally, it should be noted that the new alternative proposed by EPA and VDWM requires remedial efforts much more extensive than that contemplated by the residents. As set forth above, the vast majority of the residents are concerned with the

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level and depth of lead contamination in open areas on their property. The new proposal, however, apparently also calls for cleanup of deep soils in commercial/industrial areas to levels required for residential surface soils. There is simply no health-based reason for such cleanup since exposure even to surface soils in commercial/industrial areas is very limited, and is zero to subsurface soils.

Moreover, the commercial/industrial areas represented by the Abex Lot and the Holland Property are more conducive to institutional controls and deed restrictions that could effectively control future exposure risks. While it is true that EPA has expressed a preference for treatment in Superfund remediations, EPA's own Records of Decision ("RODS") are replete with evidence of sites where institutional controls have been effective. In addition, even if construction or demolition activities were to occur in the above commercial/industrial areas in the future, such activities are generally licensed or controlled in some way by local permits. They are also generally carried out in such a fashion as to segregate deeper soils from surface soils, in order to allow replacement of the usually more fertile surface soils back on the surface after completion of the activities.

Insofar as any of the above activities are licensed, it is entirely feasible, reasonable and good common sense to require as a condition of licensing that special efforts be made to segregate soils deeper than some pre-specified depth. Alternatively, soil testing at certain depths could be required. Insofar as segregation of soils is already performed as good practice, this practice can be encouraged and also prevents mixing of soils from depth with surface soils.

Based on the foregoing, it is clear that the presence of lead at high levels in deep soil (i.e., below about 1 to 2 feet) in the commercial/industrial areas does not prevent the use of the area and does not present an unacceptable health risk. In the absence of exposure pathways, the mere presence of lead is quite irrelevant. For unusual activities that disturb the deep soil,

Pneumo Abex hereby incorporates by reference all RODs which allow institutional controls and deed restrictions as an accepted method of control. As stated earlier, due to the limited amount of time that Pneumo Abex had to comment on the basis of EPA and VDWM's new preferred remedy, Pneumo Abex has not been able to physically incorporate all of these documents. However, Pneumo Abex will supplement the record with copies of these documents.

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modifications to the activities may be required (e.g., segregation of the deep soil), but no activity would actually be prevented.

2. Memorandum from OSWER entitled "Lead Cleanup Standard Application at the Abex Site in Portsmouth, VA."

The second apparent basis for EPA and VDWM's decision to require excavation of all site-related lead "to depth" was a Memorandum from EPA Headquarters entitled "Lead Cleanup Standard Application at the Abex Site in Portsmouth, VA." This memorandum was not made available to Pneumo Abex until noon on July 8, 1992 and thus, it is impossible for Pneumo Abex to comment on the information contained therein in any detailed or informed manner. Nonetheless, Pneumo Abex offers the following written comments, under protest, regarding EPA and VDWM's reliance on the memorandum.

First, it is Pneumo Abex's position that the memorandum is misleading in several respects, and appears to have been written with a fundamental misunderstanding of the nature of the threat posed by lead in soil. For example, the title of the memorandum appears to suggest that it is discussing a "Lead Cleanup Standard." To our knowledge, there is no standard for soil lead cleanup. All that is currently available is a lead cleanup guidance memorandum that discusses how to estimate suitable lead cleanup levels by use of the EPA uptake/biokinetic model (based on assumptions about chronic soil ingestion in children). See U.S. EPA, Update on OSWER Soil Lead Cleanup Guidance (Aug. 29, 1991). This model was used by Pneumo Abex in the Baseline Risk Assessment and its proper application supports the remedy set forth in the RI/FS.

Second, the term "direct contact threat" is used throughout the document, but is not defined. Lead contamination in soil does not pose a "direct contact threat" since the risk of the exposure pathway of dermal absorption of lead is minuscule. As set forth above, the significant pathway of exposure as to risk is indirect, relates to small children, and is the result, ultimately, of exposure through the ingestion route. Therefore, even though the memorandum purports to pertain to the Abex Corporation Site, in reality it is simply inapplicable scientifically justified EPA Risk Guidance.

In addition, Point 4 of the Memorandum is simply a sequence of non-sequiturs. Point 4 of the Memorandum first states that EPA has no general guidelines for applying a direct contact standard to specific depths. However, in this case there is no

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"direct contact standard," merely guidance for obtaining suitable lead cleanup levels by using suitable assumptions about soil ingestion rates in children and using the EPA uptake/biokinetic model. See U.S. EPA, <u>Update on OSWER Soil Lead Cleanup Guidance</u> (Aug. 29, 1991).

EPA is said to have considered surface contamination to range from one to twelve feet in depth at other sites. This may be perfectly appropriate for other sites, with other contaminants. For example, some contaminants pose a direct contact threat—simple contact with the contaminant may result in dermal exposure sufficient to pose a hazard through dermal absorption, so that access to contaminated soil must be prevented. However, in this context it is irrelevant since lead does not pose a direct contact risk of such a nature, there is negligible hazard from digging into contaminated soil, and direct contact with that soil does not pose a threat. The hazard from lead contaminated soil comes from ingestion by a limited population of small children of substantial quantities, probably over a substantial period (months to years).

Another difficulty with the Memorandum is that it does not take into account whether the groundwater table constitutes a limiting factor for construction activities. The actual limiting factors on construction activities will depend on the type and conditions of construction, local building codes, and other factors.

<u>5</u>/ See generally, Centers for Disease Control, Preventing Lead Poisoning in Young Children (Oct. 1991). See also ATSDR, Toxicological Profile for Lead, U.S. Department of Health and Human Services, Public Health Service (June 1990); ATSDR, Toxicological Profile for Lead, Draft Update for Public Comment (Oct. 1991); EPA, Air Quality for Lead, Vols. I-IV, EPA-600/8-83/028aF-028dF; EPA Risk Assessment Guidance for Superfund, Vol. 1: Human Health Evaluation Manual (Sept. 29, 1989); IARC, IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol 23 (July 1980); Minnesota Pollution Control Agency, Soil Lead Report to the Minnesota State Legislature: A Statement by the Minnesota Pollution Control Agency and the Minnesota Department of Health (June 1987); Minnesota Department of Health, Supplement to: Soil Lead Report to the Minnesota Legislature (May 1988); Environmental Health Criteria 85, Lead - Environmental Aspects (1989) WHO, Environmental Health Criteria 4. Lead (1977). The foregoing publicly available documents are hereby incorporated by reference into the Administrative Record.

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The final statement that "depth to the water table . . appropriate . . . against a direct contact threat for this site" does not follow, since the 500 mg/kg cleanup level is not against a direct contact threat and no direct contact threat has been established for this site. This final statement purports to be site-specific by including the wording "appropriate . . for this site," but the discussion has neglected to take account of site-specific factors (for example, a large part of the site is non-residential). In fact, this last statement amounts to a declaration that any cleanup level derived for surficial soil should be applied to a depth of 12 feet or to the groundwater table (whichever is shallower), no matter what the justification for the cleanup level.

This final factor cannot be over-emphasized or overlooked. In this regard it is important to note that both the 1991 OSWER directive and the 1992 OSWER Memorandum refer only to lead cleanup levels or depths in residential areas. The question then becomes if EPA never intended to make a distinction between cleanup levels in residential areas and cleanup levels in industrial areas, why did it make such a distinction in the first place. The answer is that risk is based on exposure and that children are more likely to be exposed to contaminants in residential areas than in industrial areas. To ignore this distinction is to ignore the basic concepts of risk analysis.

In addition, while it is true that land use designations sometimes change, that is not the case with respect to the Abex Lot and Holland Property. These parcels have been designated for industrial/light commercial use for over one hundred years. As further evidenced by the City's intent to develop the vacant land to east of the former foundry as a commercial center, it is unforeseeable that the current land use designations in this area will change (See attached development plans for Portcentre Commerce Park).

Moreover, as an example, one need only examine the attached ROD for the Bunker Hill Superfund Site to see how far the cleanup levels and depths at the Abex Corporation Site have degenerated from accepted risk analysis utilized to remediate a residential areas elsewhere in the country into blatant arbitrariness here. At the Bunker Hill Site, risk

See Record of Decision, Bunker Hill Mining and Metallurgical Complex, Residential Soils Operable Unit, Shoeshone County, Idaho (August 1991).

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characterization was based on observed childhood population blood lead levels and environmental media lead concentrations collected over seventeen years. This information was then used in EPA's integrated uptake/biokinetic dose response model to determine acceptable cleanup levels. The remedy selected using this procedure combined a 1,000 mg/kg cleanup level with institutional controls and excavation of contaminated soil up to 12 inches in depth followed replacement of clean fill and gravel.

In the instant case, Pneumo Abex also followed all accepted risk assessment and management guidelines to characterize the risk and then formulate an appropriate remedy. The cleanup level chosen focused on the type of property affected (residential versus non-residential) and the likelihood that highly exposed children would come into contact (primarily through ingestion) with sufficient quantities of lead contaminated soil such that they might have blood lead concentrations exceeding 10 ug/dl. PPA and VDWM have apparently decided to disregard the conclusions of the Baseline Risk Analysis in favor of an arbitrary remedy which requires the cleanup level of 500 mg/kg to be applied across the site regardless of land use and excavation of contaminated soil to depth regardless of likelihood of exposure. This is simply not good science and has disastrous policy implications.

C. Technical Clarifications

1. Superfund Site Proposed Plan (Proposed Plan, 1992)

Pneumo Abex would also like clarify several inaccuracies currently included in the Administrative Record. The first of these may be found in the Abex Superfund Site Proposed Plan which contains several misrepresentations of what the Baseline Risk Assessment and RI/FS concluded. These misrepresentations should be corrected, since they communicate erroneous information. As discussed in U.S. EPA Memorandum, <u>Guidance on Risk Characterization for Risk Managers and Risk Assessors</u>, (Feb. 26, 1992), "although a great deal of careful analysis and scientific judgement goes into the development of EPA risk assessments, significant information is often omitted as the results of the assessment are passed along..."

^{2/} See generally, Centers for Disease Control, <u>Preventing Lead</u>
Poisoning in Young Children (Oct. 1991).

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characterization was based on observed childhood population blood lead levels and environmental media lead concentrations collected over seventeen years. This information was then used in EPA's integrated uptake/biokinetic dose response model to determine acceptable cleanup levels. The remedy selected using this procedure combined a 1,000 mg/kg cleanup level with institutional controls and excavation of contaminated soil up to 12 inches in depth followed replacement of clean fill and gravel.

In the instant case, Pneumo Abex also followed all accepted risk assessment and management guidelines to characterize the risk and then formulate an appropriate remedy. The cleanup level chosen focused on the type of property affected (residential versus non-residential) and the likelihood that highly exposed children would come into contact (primarily through ingestion) with sufficient quantities of lead contaminated soil such that they might have blood lead concentrations exceeding 10 ug/dl. PPA and VDWM have apparently decided to disregard the conclusions of the Baseline Risk Analysis in favor of an arbitrary remedy which requires the cleanup level of 500 mg/kg to be applied across the site regardless of land use and excavation of contaminated soil to depth regardless of likelihood of exposure. This is simply not good science and has disastrous policy implications.

C. Technical Clarifications

1. Superfund Site Proposed Plan (Proposed Plan, 1992)

Pneumo Abex would also like clarify several inaccuracies currently included in the Administrative Record. The first of these may be found in the Abex Superfund Site Proposed Plan which contains several misrepresentations of what the Baseline Risk Assessment and RI/FS concluded. These misrepresentations should be corrected, since they communicate erroneous information. As discussed in U.S. EPA Memorandum, <u>Guidance on Risk Characterization for Risk Managers and Risk Assessors</u>, (Feb. 26, 1992), "although a great deal of careful analysis and scientific judgement goes into the development of EPA risk assessments, significant information is often omitted as the results of the assessment are passed along..."

^{2/} See generally, Centers for Disease Control, Preventing Lead Poisoning in Young Children (Oct. 1991).

Joseph G. Homsy July 10, 1992 Page 14

More specifically, "[o]ften when risk information is presented to the ultimate decision-maker and to the public, the results have been boiled down to a point estimate of risk. Such 'short-hand' approaches to risk assessment do not fully convey the range of information considered and used...." Further, "EPA risk assessors and managers need to be completely candid about confidence and uncertainty in describing risks...", and "Numerical risk estimates should always be accompanied by descriptive information carefully selected to ensure an objective and balanced characterization of risk in risk assessment reports and regulatory documents".

The foregoing guidance was clearly not adhered to in the instant case. For instance, on page four of the Proposed Plan, it is stated that "sampling and analysis ... downgradient of the Abex Lot has detected lead levels of 30 ug/l." This is incorrect. The detections of 24 ug/l and 31 ug/l lead were in monitoring well one (MW-1), which is in the Abex lot, not downgradient of it. It should be noted that the best scientific information memorialized in the RI/FS indicates that groundwater immediately under the Abex Lot is non-potable due to brackishness.

The Proposed Plan goes on to state that the primary exposure pathways of concern at the Site are incidental ingestion of soil and inhalation of dust. This is also incorrect. The primary exposure pathway was concluded to be ingestion of soil. It was concluded in the Baseline Risk Assessment, based on field data memorialized in the Remedial Investigation that inhalation of dust was a minor pathway. It is simply incorrect and without basis to characterize this pathway as a primary pathway.

In addition, neither the Integrated Uptake/Biokinetic model, nor the Baseline Risk Assessment concluded that children are exposed to an "unacceptable heath risk when lead concentrations in surface soil or dust exceed 500 mg/kg." What was actually concluded was, again based on field data contained within the RI Report, that "at soil concentrations of about 500 ppm, 5-15 percent of relatively highly exposed individuals (probably corresponding to less than 1 percent of all children) might have blood lead concentrations exceeding 10 ug/dl, and that "the cleanup concentration of 500 ppm should strictly be interpreted as an average over an area in which an individual might spend a large fraction of their time (for example, home and back yard)". Further, "this level applies for residential areas", and "in non-residential areas, the fraction of time individuals spend in contact with the soil is much smaller...a safe cleanup level is proportionately higher."

Joseph G. Homsy July 10, 1992 Page 15

2. Letter from Nancy Rios, Technical Support Section (3HW15), USEPA, Region Ill to Darius Ostrauskas, Remedial Project Manager, Superfund Remedial Branch, WA/WV Section (3HW24), Dated 4-23-92

Pneumo Abex would also like to offer written comments on certain misstatements made in a letter by Nancy Rios and included in the Administrative Record. It is stated in the letter by Ms. Rios that she reviewed the Baseline Risk Assessment. Apparently, the review was incomplete, since she evidently missed the sections of the Final Risk Assessment (dated February 25, 1992) that deal with exactly the topics she claims are missing.

For example, she states in her letter that the "risks associated with the other Site's contaminants of concern [i.e. TPHs in soil and VOCs and hydrocarbons in groundwater have not been properly assessed in the final human health assessment.' This is not correct. Total Petroleum Hydrocarbons ("TPH") have never been a contaminant of concern per se at the Site, as indicated in the letter. However, all the individual components of any TPH have been included in the risk assessment, since such individual components are analyzed in soil samples. This in fact is the approach recommended by Ms. Rios in the letter.

In addition, Tentatively Identified Compounds ("TICs") in both soil samples and groundwater were examined and eliminated from further consideration according to current EPA guidance in Sections 2.2.7 and 2.2.10 of the Risk Assessment. EPA, 1989. See Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual. Interim Final. OSWER Directive 9285.7-01a. September 29, 1989. VOCs in groundwater were also examined in Section 2.2.9 of the Risk Assessment. In that section, a bounding estimate was used to show that exposure to VOCs in groundwater was not significant and could be eliminated from further refinement. See Guidelines for Exposure Assessment, 57 FR 22888 (Friday May 29, 1992).

Secondly, on page 2 of her letter, Ms. Rios states in connection with the trace PAH found in dust samples on the Holland property "[a] risk assessment for inhalation of dust contaminated with PAHs was not provided in the final human health risk assessment". This is simply incorrect. Section 3.4 of the final Risk Assessment provides an exposure assessment for Workers at the Holland property site that is considerably more detailed and more conservative than the summary assessment provided by Ms. Rios in her letter. The risks arising from this exposure are detailed in

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Thankyou,

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Mr. Jack Kelly, ATSDR, EPA 841 Chestrut Building Philadelphia, Philadelphia

Clips

Portsmouth residents get answers on lead hazards

By C.J. Clemmons

Staff writer

PORTSMOUTH — Environmental Protection Agency officials had hoped Wednesday to present a final report on how to clean up the lead-contaminated Washington Park housing complex.

But because the report was not completed, they listened instead to more questions from residents

about safety concerns.

Nearty 100 Washington Park residents listened at City Hall as representatives from city and federal agencies tried to allay their fears of

lead poisoning.

Representatives from the federal Environmental Protection Agency, the state Department of Waste Management, the city Health Department, the state Bureau of Chemistry and the Portsmouth Redevelopment and Housing Agency all attended the public meeting to answer residents questions about lead removal and blood lead testing. Mayor Gloria Webb and City Council members were also present.

Washington Park residents have said they do not believe the city is being truthful about the extent of the health hazard in their

community.

But Webb said that a "consistent interpretation" of the situation can lead to a better understanding.

"We realize this has been a frustrating time for you," Webb said.
"It's been a frustrating time for all of us."

Soil in Washington Park and the surrounding area was contaminated by the Abex Corp., a bronze foundry that operated there from 1928 to 1978. The area has been designated a Superfund site, making it a high-priority site for cleanup.

Dr. Venita Newby-Owens, director of the city Health Department, said that 546 blood tests were administered and that all but four

have been returned.

Twenty-one children — 14 boys and seven girls — showed abnormal or "mildly elevated" blood lead levels, she said. None was considered a medical emergency.

"It is my sincere hope that this information will enable you to make a judgment based on fact," Newby-Owens said.

Leanne Nurse, a community relations coordinator with the EPA, said the long-term cleanup plan should be completed within the next month, and will be available at the public library and in the Washington Park management office.

The cleanup may take as long as four years and could cost as much as \$16 million. An initial soil remov-

al was completed July 17.

The EPA has set up a toll-free hotline — 1-800-438-2474 — for residents' questions and comments.

U.S. ORDERS TESTING OF POOR CHILDREN FOR LEAD POISONING

MILLIONS UNDER 6 AT RISK

But Directive to Medicaid Will Let States Use Inaccurate Method of Screening

By ROBERT PEAR Special to The New York Times

WASHINGTON, Sept. 12 — Responding to new medical concerns about the harmful effects of exposure to even low levels of lead, the Federal Government is requiring that virtually all young children on Medicaid be screened for lead poisoning. But the Federal directive allows states to continue using a test known to be inaccurate in measuring small amounts of lead in the blood.

The new policy, in instructions to state Medicaid officials that take effect later this month, is intended to prod states to be more aggressive in testing children for lead poisoning. The policy reflects the conclusion of Federal health officials that levels of lead once thought to be safe can cause mental retardation, learning disabilities, stunted growth, hearing loss and behavior problems in children.

"All children ages 6 months to 72 months are considered at risk and must be screened for lead poisoning," say the instructions from the Federal Health Care Financing Administration, which supervises the Medicaid program for low-income families. "Complete lead screening consists of both a verbal risk assessment and blood tests."

Millions at Risk

Lead poisoning is one of the most common child health problems in the United States. The Government says it afflicts three million to four million young children — one in six youngsters under 6 years old. The highest risk occurs among low-income children, the very ones entitled to screening under Medicaid. Many of them live in old, dilapidated inner-city housing with peeling lead-based paint. But the Government emphasizes that "no socioeconomic group, geographic area or racial or ethnic population" is exempt from the risk of lead poisoning.

The new directive will affect hundreds of thousands and eventually millions of children. More than six million children under 6 are on Medicaid. Experts say that fewer than half have been screened for lead poisoning.

More extensive testing will presumably find more children who need treatment. But neither Federal nor state officials could estimate the cost.

Testing Rare in Some States

Medicaid is jointly financed by the Federal Government and the states. If Medicaid recipients suffer lead poisoning, Medicaid usually pays for treatment and may pay for efforts to identify the source. Private insurance also pays for some lead screening. But Medicaid and private insurance usually do not pay for removing paint, dust and

Continued on Page 42, Column 4

U.S. Orders Testing of Children for Lead Poisoning

Continued From Page 1

other sources of lead, and it is often unclear who is responsible for cleaning up contaminated sites.

Until now, criteria for screening, like many details of the Medicaid program, varied from state to state. A recent report by the United States Public Health Service said, "Many states do not conduct much screening.

In October 1991, the Public Health Service said there was "overwhelming and compelling" evidence that chil-dren had been harmed by lead in con-centrations as low as 10 micrograms per deciliter of blood. The test widely used for the last 15 years is not sensitive enough to detect levels that low.
"The more that is learned about

lead's effects on children and fetuses, the lower the blood lead level at which adverse effects can be documented," the Public Health Service said. It noted that lead does not break down but builds up over months and years in human blood, bones and organs.

he new rules acknowledge that "it will take some time for states to make will take some time for states to make a transition" to a more accurate, more expensive test for lead poisoning, known as a blood lead test. This is clearly "the screening test of choice." the Government said.

the Government said.

But "states continue to have the option" of using the cheaper, less accurate test, which is "not sensitive for blood lead levels below 25 micrograms per decititer," the Government said. Lead levels in the range of 10 to 15 micrograms are cause for concern between the content of the c cause they can harm a child's health, Federal scientists say

Criticism From Pediatricians

Dr. J. Routt Reigart of the American Dr. J. Routt Reigart of the American Academy of Pediatrics, Dr. Janet A. Phoenix of the Alliance to End Childhood Lead Poisoning and Sara Rosenbaum, an expert on child health at the George Washington University Center for Health Policy Research, all said the Government should require use of the Government should require use of the more accurate blood lead test.

"By not insisting on the more accurate test, the Government is, in effect, sanctioning a lower standard of medical practice and telling states they don't have to pay for a more rigorous standard," Ms. Rosenbaum said.

But Federal officials said they wanted to give state officials some flexibili-ty. They noted that the more accurate test costs more: \$15 to \$60, depending (Medicaid recipients under 6 were on how and where the test is perscreened for lead poisoning last year. formed, as against \$1 to \$5 for the less. It New York, there are 580,000 children accurate test. They also said that some funder to on Medicaid; 340,000 got a states do not have the laboratory ca- [standard battery of medical tests last.] pacity, equipment, chemists and other personnel needed to do the more accurate test on large numbers of children.

Federal health officials said they hoped manufacturers would develop less expensive tests for lead poisoning. The technique widely used for the last 15 years, known as an erythrocyte protoporphyrin test, does not directly ibust our star theory capacity — equip-measure lead in the blood; rather, it ment and sersonnel — to do the addimeasures certain biochemical effects of exposure to lead. It "misses more than half of the kids who are poisoned, Dr. Phoenix said.

Fraction of Children Tested

Dr. Reigart, who is chairman of the pediatric academy's committee on en- p vironmental health, said: "There is a need for more screening, Medicaid should mandate use of the blood lead ile to test because we are concerned about (%) lead at low levels where the E.P. test is just not appropriate."

The extent of testing for lead poison-

In extent of testing for lead poison-ing varies widely from state to state. In Mississippi, Denise B. Tyrone, a spokeswoman for the state Medicaid program, said that only 467 Medicaid recipients under 6 were checked for lead poisoning last year, even though more than 63,000 were screened for other health problems. In North Caroli-lea, state officials said that lewer than na, state officials said that fewer than There

Lead Poisoning: Assessing the Risk

New Medicaid rules say that doctors should ask these questions to assess the risk of lead poisoning in children 6 months to 6 years

- Does your child live in or regularly visit a house, a day-care center or a nursery school that was built before 1960 and has psellng or chipping paint?
- ✓ Does your child live in a home built before 1960 that is being remodeled or renovated?
- Does your child live near a heavily traveled major highway where soil and dust may be contaminated with lead?
- Have any of your children or their playmates had lead poisoning?
- Does your child often come in contact with an adult who works with lead - in construction, welding, plumbing, pottery or other trades?
- Does your child five near a lead smelter, a battery-recycling plant or other industrial sites likely to release lead?
- Does your home plumbing have lead pipes or copper with lead solder joints?

It the answer to any of these questions is yes, the Government says, a child has a substantial risk of exposure to lead and should be given a blood lead test as soon as one can be arranged. If the answers to all questions are negative, the child is said to have a low risk, but should nevertheless be tested for lead poisoning at 12 months of age and again, if possible, at 24 months, Federal officials say.

Forgoing a health test that's better but costlier.

LEAD CONCERNS IN NEW YORK

Teachers call for systemwide checks for lead-paint problems in public schools after the closing of an elementary school. Page 53.

alf of the 149,000 Medicaid recipients

lander 6 had been screened for lead. In New Jersey, 43,095 of the 146,760 year and state officials say most of them were tested for lead. Connecticut

could not supply comparable data. services for Medicaid in North Carolina, and the are well aware of the new forter in a undards, but we cannot achieve been proportionals. We have to

tional screening and follow-up." The state recently bought an \$80,000 spectrometer to test blood for lead.

Risks Inside and Outside

There are many sources of lead in the environment. In New York last month, Brooklyn residents expressed alarm about lead found in paint chips and other debris produced by workmen sandblasting the Williamsburg Bridge. Renovation of older houses can create similar risks.

Accordingly, Federal officials say older homes should be tested for lead-based paint before they undergo any

renovation that might generate dust.
The Government and the American Academy of Pediatrics have long oncouraged tests for lead poisoning, but many doctors do not order them is part of routine pediatric care. Federal and state officials say they will prist doctors to insist on more screening.

Lead poisoning can often be treated successfully if it is detected early in serious cases, doctors prescribe dr. 25 that increase excretion of lead from the body through a procedure known is chelation therapy. Still, some of 5 neurological damage may be irrever thle, doctors say.

That's why it's important to use highly sensitive test and do it prumps by." Ms. Rosenbaum said.

4 Leading Indianians Among Crash Dead

-- 135 Sept. 12 (AP) --. one business and civic and ormer aide to Dan mink the six people who eren Gu small airplanes - ity's southern sub-

is the four collided. e shortly after take-· a Municipal Airport - The let spun into low, killing all arbeir pilot.

her plane was * * * re- rescutly injured.

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The four passengers on the jet Am Michael A. Carroll, vice president community affairs at the Lilly East A ment in Indianapolis, a former Degree Mayor who was once a special assault to Senator Richard Lugar and Mr. Quayle when he served in the ate; Frank McKinney Jr., a burne executive and former Olympic >* mer: John Weliever, former direct Indiana's lottery and of the state . partment of Administration, and Welch, a prominent developer who critically injured. | an unsuccessful Democratic candels | alters on the for mayor in 1975.

Abex Corporation Superfund Site Information Session Held

By Elisa Kay
Staff Writer

While the Environmental Protection Agency (EPA) and the Department of Waste Management (DWM) are busy trying to "get the lead out" of the Abex Corporation Superfund site, many Portsmouth residents are anxiously awaiting the results.

Approximately 20 people attended the recent 30-minute update on the site, which was established to "apprise us (the city) of what they are doing on the Abex site," said Carol Pratt, the city's public information officer.

Up to this point, Pratt said, they have been doing soil samples on the site, which used to be a brass and bronze foundry that manufactured railroad car parts. Two hundred soil samples were collected within a five-mile radius of the site, with the collections delving as deep as 12 feet below the ground.

Samples were also collected outside of the radius and in attics of nearby houses, in an attempt to determine the effect of the hazardous waste on surrounding areas. It is possible, Pratt said, that the wind may have carried some of the contamination to nearby regions.

"They didn't really reveal anything (in the meeting)," Pratt said. They did, however, mention that the soil sample testings would be completed by the end of the summer. Once it is determined whether or not the site is free from lead contamination or other dangerous metals, a feasibility study will be conducted so that the city can decide what to put on the land.

Air samples have been taken from the Abex site as well, Pratt continued. Once the test results are completed, another information session will be held.

Pratt said that the important notes of the meeting include that Abex Corporation has taken on the

responsibility of the cleanup costs. "They have been extremely cooperative," she said, "which makes things progress more smoothly and quickly."

Another note is the fact that once all of the procedures are completed by the EPA and the DWM, the city will be able to do an assessment of what will go on the site. It is important that there are no long-term effects from the hazardous materials, Pratt said. The site has already been "black-topped" to deter any short-term effects of the site during the remedial investigation.

The two-acre site, which is located at the corner of Randolph and Green Streets approximately 3/4 of a mile from the Naval Shipyard, was put on the EPA's top priority list in October of 1990. It was at this point that the DWM was called in to analyze the possible dangers of the site and its effect on surrounding areas.

Most of the residents who live in or around the site have been given-blood/lead screenings to determine whether or not they have been affected. "So far," Pratt said, "there have been no indications of lead levels" in any of the tests.

The EPA's Superfund Program was created by Congress in 1980 under the Comprehensive Environmental Response, Compensation and Liability Act, and amended in 1986. The program's purpose is to identify and clean up uncontrolled or abandoned hazardous waste sites that pose a threat to public health and the environment.

Ahex Corporation closed down more than seven years ago, but is sulf held liable for the contamination. Lead concentrations of up to 42 times the acceptable level have been identified on and near the site, however, the condition has been liabilized.

Lead removal goes too slowly for residents

By Alec Klein

Staff writer

PORTSMOUTH — All that 11year-old Ronnie D. Hunter knows
about the Effingham Playground,
where he has scampered over jungyms and swings for years, is
"it's fun out here."
hat he and his playmates don't

hat he and his playmates don't know is that an insidious poison lurks somewhere in the soil beneath

their feet.

Until recently, federal and state officials monitoring lead contamination from a closed-down factory didn't know the threat posed by the playground's soil.

It has been 11 years since the U.S. Environmental Protection Agency was alerted to the lead problem on Green and 7th streets left behind by a brass and bronze foundry that operated there from 1928 to 1978.

Yet after years of soil testing and stop-gap measures to eliminate the

SOIL CONTAMINATION: AND

landfill.

How the site became contaminated: The Abex Corp. ran a brass and bronze foundry there from 1928 to 1978, recycling railroad parts by melting them. The process released lead particles into the air. The metal was also put into sand casts, which were later discarded in an adjacent lot.

The risk to children. Steady exposure to lead through ingestion, inhalation or skin contact can cause neurological disorders in children, who are more susceptible than adults because of their smaller bodies.

How to clean it up: Soil found to be contaminated must be dug up, treated and then hauled to a

immediate threat, the problem lingers.

The most recent study has revealed that the potential health hazards extend across the street to Effingham Playground and parts of Washington Park, where 457 people live.

Officials say it will likely be anoth-

er three or four years and cost \$16 million — before the area is completely safe. But as a temporary measure, the EPA has ordered another cleanup of areas overlooked previously, including the Effingham Playground and parts of Washington Park.

"It's not an emergency health

risk," said Jamie Walters, community relations supervisor of the state Department of Waste Management, which is working with the EPA. But she said it is serious enough to plan to cordon off the playground and treat the soil within a month.

Parents, fearful for their children's safety, say it's taking too long to clean up the area.

"They should get it done right now instead of dragging their feet," said Chaz L. Randolph, who lives with his wife, Linda, and four children in Washington Park. "I don't want to hear they'll be taking care of the problem."

State and federal officials overseeing the cleanup acknowledge it is a lengthy process, but say they are working as efficiently as possible.

"The way the process is set up, we try to take it a step at a time," said Kimberty A. Hummel, chief of

Please see LEAD, Page B4

skies prevailed over the this morning. Fog to cities early today. Tusually cool weather for in the Southeast today. Thun-southeast today at Tuesday cas a, New Environment of the Guilt of the Mississippi Valley.

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SUNDAY



MASSACHUSETTS!

More pet owners, dogged by fleas, are losing the war

BOSTON — American pet owners spend an estimated \$1 billion a year on their battle against fleas — but the tiny pests are winning.

"We're no further shead than we were 100 years ago in terms of eliminating the flea," says James C. Blakemore, a Purdue University expert who studies fleas.

Blakemore and fellow veterinarian Michael W. Dryden, of Kansas State University, described the burgeoning flea problem Monday at the annual meeting of the American Veterinary Medical Association.

"Fleas on dogs and cats serve no useful function other than to make money for pharmaceutical companies and to keep me in research," said Dryden, whose license plate reads "DR FLEA."

Biologists say there are more than 2,200 species and subspecies of fleas worldwide, but the pest that causes dogs the most trouble is one called the cat flea, which not surprisingly also afflicts cats.

ENEW HAMPSHIRE

Exeter principal can't confirm report on taped students

CONCORD — The principal of Phillips Exeter Academy said Tuesday that the school had no information to substantiate a published report that as many as 10 former students had been identified on allegedly pornographic videotapes confiscated last month from the home of a faculty member.

A story in Tuesday's editions of the New York Times quoted "law enforcement officials" as saying that the former students, all male and some of them nude and engaged in sexual acts, appeared on tapes seized from L. Lane Bateman, who had been chairman of the drama department at the school. Exeter's principal, Kendra Steams O'Donnell, fired Bateman after his arrest last month and ordered him to vacate his faculty housing.

NEW YORK!

Study says lead removal no big health advantage

BOSTON — A major study of Boston, children shows that removing lead from contaminated soil in back yards does not have as positive an effect on the health of children as had been expected, federal environmental officials announced Tuesday.

The finding raises fundamental questions about how a key urban health problem should be addressed and about whether federal Superfund cleanup of lead-contaminated soil would help, say public health and government officials.

Lead concentrated in the soil is considered one of the top three sources of lead poisoning, behind paint and tap water drawn from lead pipes. Up to 9,000 children in Massachusetts and 4 million nationwide are considered lead-poisoned, a condition that can cause brain damage.

The lead in the soil is the result of emissions that came from autos before restrictions were placed on the use of leaded gas, and from lead-based paint, which is present in many older homes.

II NEW JERSEY I

Governors sign regional plan to control ozone

PRINCETON — The governors of 12 Northeastern and Mid-Atlantic states and the mayor of the District of Columbia have agreed to a regional plan to help their governments meet tough new federal laws on ozone pollution.

The Clean Air Act of 1990 threatens fines if states fail to carry out "interstate strategies and mechanisms" to control ground-level ozone, which is the primary ingredient in urban smog.

The law requires the Ozone Transport Commission, a Northeastern and Mid-Atlantic panel, to assess the ozone problem in the region, to evaluate methods for controlling it, and to develop regionwide strategies for carrying out such methods. The leaders signed the agreement Tuesday.

Reagan not tag of Contra inqu prosecutor sa

washington — Iran prosecutor Lawrence M. W told former President Reag not a target in the 5½-year investigation of the Iran-Con-Reagan's lawyer says.

Theodore B. Olson said that a letter sent last wer simply that Walsh's office President Reagan as simply and not as a subject or targ investigation.

In Justice Department minology, a subject is some activities fall within the s grand jury investigation: A i likely to be indicted.

Ex-CIA agent testif to meeting in

washington operative who coording ments to the Nicaraguan C tifled Tuesday that he climind about leaving Centrafter a 1986 meeting ir President Bush's office.

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Bush friendly to (but eager to ente

WASHINGTON - im says his Democratic nvalike," but quickly adds wait to do battle against

The president descrit Gov. Bill Clinton as a mi said, "I've always though

Then he added. "I have ing nice things and state he's been doing to me from six months! — and it out his record."

Sununu and Roh to address GOP

WASHINGTON
House chief of staff Joh
1988 GOP presidential
Robertson of Virginia
among the speakers
can National Comments

Dave Drave .

LOCALBRIEFS From staff reports

NORFOLK

MOTHER SENTENCED FOR NE GLECT: The mother of a 4-monthold boy who was found abandoned outside a food market was sentenced Thursday to six months on a misdemeanor charge of child? negiect.

The mother, Yvette Arnold, 27, of the 3000 block of Dogan St. in Norfolk had left the child with a teenage baby sitter in March and had failed to pick him up four days later. At that point, the teenager turned the infant over to another sitter.

The second baby sitter. Beverly Veale, 34, of the 1200 block of Bal-Jentine Blvd. in Norfolk and her daughter left the child outside Long's Market in the 1200 block of Ballentine Blvd., then notified the police that a baby had been found.

Veale on Thursday received a suspended 90-day sentence for filing a talse report with the police.

The first baby sitter was not charged.

The child, who was unharmed was placed in foster care.

A STATE OF THE STA

LEAD CLEANUP LAGGING: Frustrated representatives of Washington Park public housing on Thursday stepped up the pressure on city. state and federal authorities to clean up lead contamination in the

"We are asking for your help," said Rafio Zaidi, one of several citizens who met with authorities. "We are not trying to be antagonistic. We're saving 'Let's move.' "

Lead contamination caused by Abex Corp., which operated a brass

and bronze factory until 1978, has remained in the area despite periodic cleanups ordered by the U.S. **Environmental Protection Agency.**

Although a temporary cleanup of the Effingham Playground and 8 inches tall, and, wearing parts of Washington Park has been spants and a purple shirt. delayed this month, the EPA said a date would be announced June 25 during a community meeting at Washington Park, when residents will get a chance to air their concerns about the lead.

NEWPORT NEWS

TWO BANKS ROBBED: Two banks were robbed within 20 minutes of each other Thursday morning, and police believe they were committed by either the same individual or two men working together.

In both robberies, a man entered the bank and presented a note to a teller demanding money.

A STATE OF THE STA

. The first occurred at the Bank at 6060 Jefferson Av 10:07 a.m. Witnesses descr robber as a black male, abo medium complexion and hair cut

... The man was last seen white Pontiac Sunbird nort ferson Avenue.

The second robbery on the Crestar Bank at 10814 Blvd. about 10:20 a.m.

Witnesses said the rob wearing a brown work uniflong sleeves. He was desc being about 6 feet 2 inches weighing about 190 pound shaven, with a medium con and short hair.

Hospital seeks second opinion on merge

By Leigh Noffsinger Staff writer

CHESAPEAKE - The Chesapeake General Hospital Authority on Thursday voted 6-3 to hire a second consultant to gather more information on whether to affiliate or merge with a health care system.

The hospital has been meeting ' with Sentara Health System, the re-'argest health network, since , gather information on possibly Juning the system. Those talks will anotimed while man into-

tion is gathered authority Chairman Dr. Jeffrey P. Powell said after the meeting.

"We have basically two choices." he said. "We can stand aloneor not. And that is an enormously complex decision. We would like more data before we decide."

The McManis Corp., an independent health-care consultant has been advising the Hospital Authority on the regional ar tional health care situation and benefits and disadvantages that would

The vote Thursday night, after nearly four hours in a closed-door session, simply means the board will seek a second opinion.

"You never do harm by getting more data — independent data. Powell said.

Authority member Benny J. Sessions, who earlier Thursday voiced his opposition to any consideration of an affiliation, voted to pursue a second consultant. <

"I am pleased that this came out the way it did." he said some his

the executive session's disc

No other board membe comment. Donald S. Buc hospital's administrator wh cally supported a merger tara, also declined to comm

The Chesapeake commi reacted emotionally to an tion of a merger. Vista Cot mer Hospital Authority founded "riends of Che Genera! pital to fight tinuing . s. About 70 r



Photo by D. KEVIN ELLIOTT

florica Atkins holds her 5-year-old son, Marcello, as a technician draws blood to that will tested for lead content. The free tests were provided by the Portsmouth Public Health Department to residents of the Washington Park area.

Fearful families tested for lead exposure

3y C.J. Clemmons

itaff writer

PORTSMOUTH — Residents of he Washington Park area are "living in fear," said one longtime resident.

Helen Person, who has lived in the Washington Park public housing complex for 28 years, was among about 225 residents who turned out Friday for free blood lead screenings at the Washington Park Community Center.

The complex and the surrounding area were contaminated with lead by the Abex Corp., a brass and bronze foundry that operated there from 1928 to 1978.

"Wouldn't you be scared?" asked Person.

The free blood tests were provided by the Portsmouth Public Health Department.

Steady exposure to lead through ingestion, inhalation or skin contact can cause neurological disorders.

"People are afraid and we want to be moved out of here," said Person.

The Abex foundry, near Green and Seventh streets, recycled railroad parts by melting them, a process that released lead particles into the air. The soil in adjacent lots was contaminated with lead deposits from discarded sand casts.

The federal Environmental Protection Agency has designated the area a Superfund site, giving it priority for cleanup.

The cleanup began a few weeks ago. Experts say it will probably take up to four years and \$16 million to rid the area of contamination.

Residents have been advised to keep doors and windows closed and to keep children inside from 7 a.m. to 6 p.m. while the contaminated soil is dug up and hauled to a landfill. Most of the units have no air conditioning.

Washington Park residents have demanded to be relocated, at the city's expense, during the cleanup.

Meanwhile, they rely on methods like blood testing to make sure they're safe.

The sound of crying children floated throughout the community

center as mothers used up will little ones waiting their turn

Sabrina Vinson and her four children — ages 3 to 8 years old — were all tested.

"I'm very concerned," she said, holding her daughter Tamika, 4. "My house is only 25 feet from one of the hot spots."

Gwen Childs, a city health educator, said home visits would be made to the elderly or sick who could not come for testing.

Results will be mailed in about two weeks. If the results are abnormal, Childs said, residents will be given further instructions.

The next free blood testing will take place next Saturday at Washington Park Community Center.

Charlotte Scott speaks to state Del. Kenneth Melvin, a Portsmouth Democrat, about lead contamination at the Washington Park housing project. Scott brought her concerns to City Hall.

Residents demand relocation

Homes in Portsmouth near polluted site

By Alec Kloin Staff writer

PORTSMOUTH — It was supposed to be a non-eventful event, the kind with a lot of handshakes, smiles and snapshots.

But this is Portsmouth, where the routine is often the sublime.

Protesters crashed Monday's ceremony to swear in new City Council members, demanding to be moved from their Washington Park public housing complex while parts of the area are being dug up to remove lead-contaminated soil.

"Evacuate us from Washington Park!" chanted the protesters, pumping their fists as they marched out of the City Council chambers at the end of the oath-of-office ceremony for the mayor and three council members who were elected in May.

Moments later, the chants

turned bolder as residents yelled, "We won't stop!"

If nothing else, the protest illustrated that it's bound to be another tough year as the new council gears up for the politically sensitive selection Wednesday of the vice mayor and the approval of the city's capital budget in October.

Monday's protest was nothing new for Councilman James C. Hawks and Mayor Gloria O. Webb — both incumbents who have weathered demonstrations before.

It was an inauspicious beginning for new councilmen Bernard D. Griffin and Cameron C. Pitts, whose first official moments were tainted by a lineup of angry residents standing in back of council chambers holding up a sign that read, "Please help us to survive lead contamination."

The group, led by Rafiq Zaidi, an outspoken minister and civic activist, is demanding to be relocated at the city's expense while the area is under a temporary cleanup order from the U.S. Faud-

ronmental Protection Agency. Zaidi said the group plans to go to federal court Friday to get an injunction to stop the cleanup until the evacuation is complete.

The area, which encompasses parts of downtown and the 457-resident housing complex, is contaminated with lead deposited by Abex Corp., which operated a brass and bronze factory until 1978.

Although authorities have maintained it is not an emergency situation, residents are fearful for their health and their children's welfare.

"We're concerned about the safety of our kids," said Kristel L. Phillips, mother of a 2-year-old.

Residents have been cautioned to keep doors closed, windows shut and children inside from 7 a.m to 6 p.m. during the cleanup, said Helen M. Person, an official of the Washington Park tenant council. But she said, "How do they expect people to stay in their

LETTERS

Setting straight the lead-level tests in Portsmouth

I are compelled to write to state the require medical evaluation and treatfacts about the blood-lead tests from the recent blood screenings referred to cur- and chelation therapy, as well as envirent and fremer residents in the area of rommental intervention/remediation. the Abex Separated Side.

had blood-said tests. As of Aug. 11, 364 defined and bed been returned from the State Consolidated Laboratories in Richmond. Of the 344 returned. 16 or L65 percent were "mildly elevated." This percentage is in the range reported for other cities similar to Portsmouth.

On three occasions -- July 31, Aug. 1 and Aug. ? - your newspapers reported that these blood level levels were "modcrately high." This is shouly untrue.

"Mildy elevated" blood-lend levels require no medical treatment. The necessary follow-up includes: environmental investigation counseling, dietary counselling, education and rescreening in three mostly.

"Moderately high" blood-lead levels

ment, possibly including cospitalization and courseling. You can imagine the in the past month, 544 people have fear that this discrepancy has created in OUR CHIEFEOS.

A correction was printed on Aug. & however, a small correction is easily missed unless one reads the entire newspaper thoroughly.

As a medical professional, a is extremely disturbing to me that incorrect information can be consistently present ed to our different. It is very difficult to "undo" the damage that has been done. VENTIA NEWBY OWENS, M.D. M.P.H. Reads Director

Department of Public Health Portsmouth, Aug. 19, 1992



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EPA faulted for disparity in penalties

Polluters face lower fines and problems are addressed more slowly in minority areas, a report says. The EPA expresses concern over the findings.

ASSOCIATED PRESS

WASHINGTON — The government moves more slowly and imposes lesser penalties against polluters in minority communities, according to a published report yesterday.

The National Law Journal reported that penalties imposed by the Environmental Protection Agency and the speed with which the problems of hazardous-waste sites are addressed varied widely, depending on whether the communities involved had white residents or minorities.

The publication outlined its findings after examining thousands of environmental lawsuits filed by the U.S. government during the last seven years, as well as administrative enforcement actions by the EPA

and the agency's record in dealing with 1.777 Superfund toxic-waste sites.

EPA spokesman John Kasper said the agency was "concerned over the points raised by the National Law Journal, and we're looking at it close-

In January, the EPA reported that minority communities do face a disproportionate number of environmental problems from all types of pollution.

But Kasper said the agency disagreed that this was caused by lax enforcement.

"Certainly, we would not agree that the government has a policy of racism as far as enforcing environmental laws," Kaspar said.

Among the publication's findings: • Penalties under the hazardouswaste laws were as much as 500 percent greater at sites in largely white communities than at sites in largely minority neighborhoods. "The average fine in areas with the greatest white population was \$333,556, versus \$55,318 in areas with the greatest minority population," the report sáid.

- The differences were not as dramatic for penalties involving other pollution laws, but fines still were on average 46 percent greater in largely white communities than in minority
- Under the Superfund law, hazardous-waste sites in largely minority areas took 20 percent longer to be placed on a national priority action list than sites in largely white areas. The start of Superfund cleanup efforts also generally were delayed longer in minority locations.

• The EPA more often chose lesspreferred methods of dealing with hazardous-waste sites when the sites were located in minority areas. For example, the report said, the socalled "containment" method of dealing with a hazardous-waste site was used 7 percent more frequently in minority communities than in largely white communities. The socalled "treatment" procedure, where wastes would be eliminated altogether, was used 22 percent more often in sites located in white communities

"The life-threatening consequences of these policies are visible in the day-to-day struggles of minority communities throughout the country," concluded the report. which was produced as a special 12page insert in today's issue of the publication.

The National Law Journal is the most widely distributed general-interest publication for lawyers in the country.

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Trees felled in cleanup of lead pollution

By IDA KAY JORDAN Staff Writer

PORTSMOUTH — A shade tree can make a big difference when temperatures soar as they have recently, says Robert Ward.

But the retired resident of the city's low-rent housing in Washington Park could only watch Tuesday as his favorite oak was cut down.

About 40 trees — 34 of them in the housing project — were cut down under orders from the Environmental Protection Agency. EPA believes the lead concentration in the soil exceeds 0.05 percent, the level determined by the government as safe.

Within the next few weeks, a contractor will remove up to a foot of soil from the yards where the trees have been cut.

The work is the final phase of the cleanup of a lead-contaminated area in Southside between Green and Seventh streets around an abandoned foundry site. The foundry was operated until 10 years ago by Abex Corp., a Boston-based company that agreed to follow the EPA orders.

The lead concentration is considered particularly hazardous to chil-

dren. When the Portsmouth health department screened youngsters for lead contamination last summer, however, none of those with lead poisoning lived near the Abex site, said Dr. Dale Hunsaker, department director.

Lowell Wessa, of Chicago, an Abex industrial hygienist on hand Tuesday, said the company would replace the trees and the soil.

But the oak trees, now about 24 inches in diameter after 23 years of growth, will be replaced with 3½-inch trees.

Al Whitener, maintenance director for the Portsmouth Redevelopment and Housing Authority, met with Wessa to identify all the trees and map out a replacement plan.

The original landscaping with pin oaks, red cedars, willows and hackberry was planned by the late Fred Heutte, a Norfolk horticulturist. The planting was completed around Christmas 1963.

Designed to provide maximum shade and beauty, the plan also gave individuality to the buildings, which all look alike.

Residents of Washington Park are puzzled and disturbed by the tree-cutting.

Maggie Stith, who has lived in the

project for 20 years, said the 23year-old trees have been lifesavers for residents who have no air conditioning.

"You can sit up under a tree and get a good breeze here," she said.

Stith lives in the 1400 block of Green St., and one tree left standing on that block is directly in front of her apartment.

"I'm glad they left that one. But you can't ever tell. That might be gone tomorrow," she said.

The block has been stripped of its shade on the south side of the street.

"We've lost all of them," said Ward, who had walked across the street to stand in the shade of one of the surviving trees. "Cutting down the trees takes away a lot. Everybody around here has been talking about it all day."

The trees had shielded the apartments of Ward and others from the sun, keeping the indoor temperature many degrees cooler during hot weather.

"We got fans but no air conditioning," he said. "And those fans don't help when the air's so hot."

For 16 years Eddie Henderson "always sat up under the trees to keep cool."

"I don't know what some of these people are going to do without the shade," he added. "I don't know why they have to take the trees."

The EPA order will affect the trees in about 25 percent of the housing project, Whitener says.

For more than a year Abex has been working to clean up the areas designated by EPA.

The problems are a result of lead contamination on a site on Seventh Street between Henry and Harring ton streets. The site was used for most of this century as a dumping ground for furnace sands containing heavy metals.

That area was the first to be cited by EPA, and Abex immediately removed the contaminated soil, put in curbings, capped off the dirt with clay and paved it with asphalt. The lot was then enclosed with a chainlink fence topped with barbed wire.

Similar precautions will be taken with another lot on the street.

Five privately owned houses in between the two lots also lost their trees Tuesday, but they will be replaced this fall. In addition, EPA will require Abex to remove and replace the soil around the houses and across Seventh Street between the curbing and the sidewalk.

Jan 14, 1993

LOCAL NEWS

Portsmouth bars EPA from lead-testing site

By C.J. Clammons
Staff writer

PORTSMOUTH — City officials have issued an order barring the Environmental Protection Agency from further soil testing of lead-contaminated Washington Park and are considering legal action against the federal agency.

A "stop-work order" was issued Wednesday by the city's Department of Environmental Services to keep the EPA from resuming work today in the housing complex. City officials claim that the EPA has not kept them properly notified of the cleanup's progress.

The move came after residents complained to City Council on Tuesday night that EPA workers dug holes and left them uncovered and

The council voted Tuesday to City Manager V. Wayne Orton City Attorney Stuart Katz study there the city could take legal action against the EPA to "accelerate" the lead removal.

"EPA has bungled the job," said Councilman James Hawks. "It's been one mess after another (and) I'm fed up with it. It's not a problem the city has created.

"Let's put the cards on the table: Tell EPA we're tired of it and we're going to court."

Wednesday's stop-work order was the second such order issued on the site in a week Stop-work orders are usually issued for building code violations.

Katz declined comment on whether the city can enforce the order, and Hawkins, who made the motion to look into other remedies, said he was not sure whether the EPA would honor the order.

EPA section chief Kim Hummel said, however, that the agency has been diligent about keeping the city informed of its activities through fact sheets, community meetings and appearances at city council meetings.

The first stop-work order was issued on Jan. 7 after residents called and complained. Hawkins said it was simply a continuation of the work started last month.

Soil sampling in that area is part of a \$28 million long-term cleanup plan which could take four years to complete.

Soil in Washington Park was contaminated by the Abex Corp. bronze foundry that operated there from 1928 to 1978.

Beach police foil Ohio teenager's flight from law

By Angelita Plemmer Stuff writer

VIRGINIA BEACH — Gregory G. Hodge, an Ohio teenager in trouble with the law, drove 550 miles hoping to find sanctuary at his mother's house in Virginia Beach.

But after 11 hours in his 1990 red Ford Tempo, he was caught after pulling off an exit ramp of the Virginia Beach-Norfolk Expressway about a mile from his destination.

The 19-year-old and an accomplice were wanted in connection with the armed robbery of two Columbus high school students on Monday. When the students refused to give up their \$150 jackets, Hodge allegedly hit one of them with the butt of an automatic handgun. The jackets and a pair of \$100 tennis shoes were stolen.

The accomplice turned himself in to Columbus police Tuesday.

After a tip from one of Hodge's family members, officials notified Virginia Beach police that Hodge could be headed there to see his mother,

Beach police set up surveillance and arrested Hodge on the First Colonial exit ramp Tuesday night.

Continued from Page D4

OBITUARIES

Hazel B. Caffee

Hazel B. Caffee, 88, of Knoth Baland, a homemaker, died Jan. 13, 1993, in Virginia Beach.

Mrs. Caffee was born in Norfolk and was a member of Oak Grove Baptist Church in Virginia Beach. She was the widow of Luther K. Caffee.

Survivors include a son, Larry L. Caffee of Knotts Island; and two nephews, Mcivin Beasley of Lynchburg and Edmond Beasley of Virginia

graveside service will be conducted at 3 p.m. Friday in Oak Grove Baptist Church Cemetery, Pungo, in Virginia Beach by the Rev. Jack Sauls. The family will receive friends today from 7 to 9 p.m. in Kellum Funeral Home, Bonney Road Chapei, Virginia Beach.

Virginia H. Williams of Chesupeake and Renay V. Hewitt of Virginia Beach; a brother, the Rev. John Hewitt of South Mills; six grandchildren; and one great-grandchild.

A funeral will be conducted at 11 a.m. Friday in Graham Funeral Home, South Norfolk Chapel, Chesapeake, by the Rov. Tom Mitchell. Burial will be in Colonial Grove Memorial Park, Virginia Beach. The family will receive friends at the funeral home today from 7:30 to 8:30 p.m. and at the residence at all other times.

Ebenezer B. Leary

Ebonezor Benjamin Leary, 86, of the 100 block of Cypress St., Hertford, died Jan. 13, 1993, in Chowan Hospital

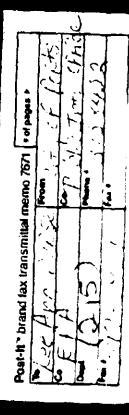
Survivors include a daughter, Annette L. Barnes of Spring Valley. Calif.; a son, Arthur H. Leary of Hampton, five grandchildren; and two great-grandchildren.

A funeral will be at 2:30 p.m. Friday

and resided in Hampton for 15 years. He was a member of Mount Caivary Baptist Church, Portsmouth, where he was a former trustee. He was a veteran of the Air Force serving in the Korean War. He retired in 1981 as directing business agent for International Association of Machinists and Aero Space Workers in Norfolk, where he served in that canacity for 18 years.

he served in that capacity for 18 years. He is survived by his wife, Mrs. Louise M. Hill of Hampton; one daughter, Mirlam D. Hill Jr. of Miami, one son, William D. Hill Jr. of Miami, Fla.; his mother Mrs. Eliza Hill of Portsmouth; one brother, Howard N. Myers of Hampton; three stepdaughters, Mrs. Natalie H. Dennis, Mrs. Natasha A. Willis-Zugg, and Natanya S. Willis, all of Hampton; six grand-clutdren; three nephews; five niecos, and a number of other relatives and

Funeral services will be held at 2 p.m. Friday at Cooks Bros. Funeral Change Naumort Name by the Barry Take an additional 50% off our lowest ticket prices on 1000s



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VIRGINIA

PORTSMOUTH Lestie Martinez, to the highest ranking woman in the Albuquerque, N.M.,

e department, who'll be pochief here by Jen. 25 — paid a
it here. She beat out 90 other aplicants during a 4-menth search to
fill the post. Sgt. Marle Chiariza,
past head of the Mid-Atlantic Assn.
of Women in Law Enforcement,
said she knew of no other women
police chiefs in Virginia....
CHARLOTTESVILLE — Surgeon
General Antonia Novello will be
the keynote speaker at the 2-day
Administrators' Conference to Improve the Health of Virginia's
Youth, which begins here today,
Gov. L. Dougias Wilder said.

Washington Park story familiar to Pennsylvanian

Lead contamination changed his life as it has a group of Portsmouth residents.

10/40/94

Ricky Strauseer has never been near the Washington Park housing complex in Portamouth, but some-how he feels a kinship with the peoENot that Strausser knows much about when life. He once lived in an 18th century log cabin on the bents of the Schuyldill River in Tilden on the Schuyana ruver in Tuom Township, Pa., a small community about 10 miles north of Reading. But as with the residents of Washington Park, lead contamina-

down threatened his health and drove him out of his home. "I went to lawyers and senstors and nobody wanted to help us," said Strusser, a 34-year-old steel found-ry worker. "It seems like the EPA

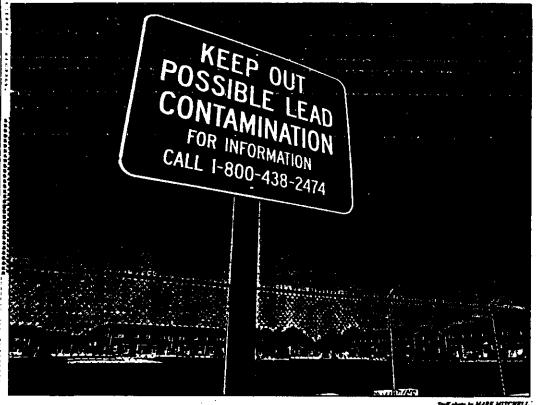
ry works. It seems has the EPA rules everything."

The Environmental Protection Agency ruled recently that the soil in Washington Park and surround-ing areas posed an "unacceptable risk" for residents. Now, at least 62

tion threatened his health and drove him out of his horse.
"I went to lawyers and sensters all nobody wanted to help us," said threatened a Manufacture of the sense of the se

His log cabin was one of only six homes near the Brown's Battery Superfund site, an abandoned bettery recycling plant that operated for a decade and left lead

Please see LEAD, Page D4



Staff photo by MARK MITCHELL

A warning is posted at the Abex foundry site, the source of feed problems at Portsmouth's Washington Park, in background. The cleanus won't start for another year or more. The plan calls for the demolition of all buildings on the Abex site and disposal of 74,438 tone of soil.

LEAD 10-20-92

continued from Page DI

contaminants in the soil.
In late 1983, the EPA "temporarily relocated" the six families, cleaned up the site with Superfund money, then deemed the area safe. The families moved back

home.

But a follow-up study between
June 1989 and March 1990 showed
high amounts of lead still present

The families were directed to

The families were directed to move again — this time for good.

Afraid of being caught in EPA's revolving door, Washington Park residents say they are ready to flee the housing project.

Sabrina Vinson can see the desolate Abex foundry — the source of the neighborhood's lead problems.

iems — from her back door.

The brass and metal foundry re-

cycled railroad parts for 30 years in the area near Green and Seventh streets. When Abex closed in 1978, it left lead contaminants behind.
"I worsy shout the lead all the

oening.

"I worry about the lead all the time," said Vinson, mother of four children, ages 3 to 8. "When I'm in the back yard hanging out laundry, I just look at that building and wonder what that stuff is doing to ""."

It's been nearly 12 years since the EPA was alerted to Washing-ton Park's lead problem. Tainted soil has been removed from the area three times since 1986, the most recent in July

Residents living near Brown's

Battery went through the same

"They were always digging around here, calling about blood around here, calling about blood tests, moving us out, moving us in, "said Strausser. "When we finally thought it was over and they left us alone for a while, they came back talking about they had found more lead. Next thing you know, they're forcing us out."

Tired of "being hassled by the EPA," the residents refused to move for more than a year, smend-move for more than a year, smend-

EPA, "the restorms conused to move for more than a year, spend-ing that time writing letters to Congress and appearing on local TV news shows in efforts to stop

IV. news shows in efforts to stop the relocation. Finally, the EPA warned the families that if they did not leave voluntarily, federal marshals would forcibly move them out.

would forcibly move them out.
"I fought as long as I could,"
Strausser said. Last March, he
was moved into a \$130,000 threebedroom home about 10 miles
from his cabin, which he said was
worth more than \$200,000. Government money paid for his new

, got scared when they started talking about federal marshais," he said. "I didn't want my family thrown out into the street. So I gave up. No one wants to fight the EPA." 'I got scared when they started

EPA spokessormen Learne Nurse said her agency is often just the bearer of bad news.
"People are fundamentally an-gry but happy that they're able to meet with us face to face," said Nurse, who, along with state health officials, was in Portsmouth

Park residents. ""
They might not like the answers they're hearing," she said, "but they know we're here and we're willing to listen."
Strausser's mother, Doris Brendei, also was relocated by the EPA last April. While the move was an inconvenience, the EPA treated them fairly, she said.
"They didn't do us dirty" said.

"They didn't do us dirty," said Brendet, whose trailer was towed about three miles away. "The EPA guy was really nice to us. I just wished they had told us that place er would have moved there."

White in Portsmouth, Nurse tried to allay the fears of Washington Park residents. She said they

ton Park residents. She said they won't be moved permianently.
"Washington Park simply does not have the same level of contaminations that Brown's Battery does," she seek taid the Washington Park remains won't start for another year or more. The plan calls of the seek tails of the

for the demonstrate of all buildings on the better Abex site, disposal of 74 430 'errs of soil, pumping out contaminated groundwater and monitoring was levels in the sir. Sure the FPA has been here

to arrow as if our questions excope seems and the cleanup begin as a sone or non from her Washington hard home "That's what saming is We don't want to stay here sinches we share song to the cope of the cop

Heave mia saled to be moved new he these irving

et to the Abex site. Nurse said federal money will cover their expenses, and depending on how long residents are displaced, they ill go into temporary housing or otels. At Brown's Battery, there are

still a few residential properties on the 14-acre site as well as an auto and truck repair shop still in busi-ness. The homes eventually will be

Strausser drives by often to look

at his former home.

"It took me 14 years to totally refurbish that cabin," he said.
"Now it's just sitting there ...

empty."
Until the cleanup plan is enacted for Washington Park, resi-dents will be notified of develop-ments through mailings and on-site interviews, Nurse said.

The agency also has set up a toll-free hot line — (800) 438-2474 — for residents' questions and comments.

Next month, EPA representa-tives and officials from the Agency for Toxic Substances and Disease Registry in Atlanta will meet with residents to discuss their health concerns. Steady exposure to lead can cause neurological disorders in children, whose small hodies make them more supercibles. make them more susceptible.

Strausser's advice to Washing-ton Park residents is: Stay wellinformed and ask questions.

"The EPA acts like they care, but they don't care," he said.
"You've got to fight for what you can get. Make them give you a fair deal."



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Currents Currents

ESTABLISHED 1977

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LEAD POISONING

Unacceptable risk

esidents of Portsmouth's Washington Park housing project complained for years that lead contamination from an abandoned foundry endangered their health.

Public health officials implied that the residents' concerns about the problem were exaggerated. As recently as last month, Dr. Venita Newby-Owens, director of Portsmouth's Health Department, said the toxins in the soil at Washington Park posed "no imminent danger to life or limb."

It's not the the city denied there was lead there. Its just that they considered it a problem the residents could learn to live with. "This situation can be handled," was the way one health department representative put it.

Well, the EPA has decided to handle the situation in its own way. The federal agency will spend \$28 million in Superfund money to eliminate the hazard once and for all. In the mean-time, they will move some residents of Washington park out of harm's way.

The EPA's action suggests that the residents knew more than the city did all along. Federal authorities, who conducted more than 1,000 soil samples from Washington Park, have concluded that there is an "macceptable risk" that residents will be poisoned by lead if they stay there.

The operative word here is "unacceptable." One disturbing conclusion that can be drawn from this affair is that the difference between "acceptable" risks and "unacceptable" risks depends on who's taking them.



Battle brews over site for new Norcom High

2 councilmen rule out PortCentre after a report school of lead contamination.

Staff writer

V PORTEMOUTH Warries about lead contamination and the planned closing of a juntar high school have revived questions about when and where a new I.C. Norcom High will be built.

At least two city councilmen and a kev Nordom akutani afficial seid Priday that they no longer support building a \$24 million school at PortCentre industrial park because a federal report says part of the proposed site is contaminated.

This week, school administrators recommended to the School Board that Harry Homt Junior High close in June as part of a citywide school connelidation,

Black leaders in Portsmouth say moving to build at either Port-Centre or Harry Hunt is a delay tao tic by white leaders determined not to erect a school to replace Norcom, no the city's traditionally black high

The board and City Council re-ne cently agreed to build a new school by 1994 on a 30-acre site at Port-Centre. If PortCentre falls through, (i) the agreement states, the new Nor, com would go up behind its current site on Turnolke Road.

But many people, including key city officials, still oppose nutting the ... school on that property, which is close to the Jethy Wilson public, housing area.

Many of those objectors are push-... ing to build the achool between Har-... ry Hunt Junior High and the nearby Frank D. Lawrence Stadium, Some say a new school there would spur much-needed economic -development

Mayor Gioria O. Webb said her first choice is a site in the Fairwood Homes housing area. Harry Hunt. she said, has pluses but its the most expensive site to acquire."

Councilmen Cameron O. Pitts said he supports Harry Hunt because its area along High Street has much less crime then does the Jeffry Wilson area and is larger than the 26 acres regulred by the state for a high school. The Norcom site is 22 acres, but the School Board has a waiver from state

"I believe if we are going to build is \$24 milition building and a mountment to I.C. Norcom, it shouldn't be a second-class building on a secondclass site." Pitts said.

Webb said: "We are all hoping that the PortCentre site will work. at least I am. It should not be built on the present site."

The meyer and other city and school officials say they will not make a final decision until SCS Ensincers of Roston re-examines the PortCentre site. The firm found lead last year when the city pushed the sie for economic development.

Now, the firm will see whether the site is safe for a school based on limits set recently by the U.S. Envi-

roumental Protection Agency. The EPA examined 3 acres of the site while evaluating an adjacent, leadcontaminated housing complex.

But Councilmen Johnny M. Clemons and Lee E. King and I.C. Norcom Alumni Association President David C. Sunford said PortCentre is. as Clemons put it, "totally out as far as a school site. There's nothing to debate. The (EPA report) speaks for itself."

All three said they will push for the current Norcom site. King and Sanford said the black community will not accept more delays.

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10-10-92





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LEANNE NURSE	CAROL PROTT	
	" P.I.O.	
Dept.	Phone 1 997- 8432	
215-597-9890	Fox + 393-5230	

EPA: Move people from lead-tainted area

Washington Park housing complex residents face an "unacceptable risk."

By C.J. Clemenone 10-7-92 Staff Writer

PORTSMOUTH — A federal report on the lead-contaminated Washington Park housing complex calls for a temporary evacuation of some residents and the demolition of all buildings left on the former Abex site, a process that will cost allout \$22 million.

The report was released last week by the U.S. Environmental Protection Agency and is being mailed to all 457 Washington Park residents as well as 50 nearby homeowners.

Soil in Washington Park was con-

taminated by the Abex Corp. bronze foundry that operated there from 1928 to 1978. The area has been designated a Superfund site, making it a high priority for cleanup.

The report states that the Abex site presents an "unacceptable risk" of lead exposure to residents.

The EPA defines a risk as "unacceptable" when people can be exposed to levels of contaminants that can cause cancer or other health problems.

EPA researchers tested more 1,000 soil samples for lead. Of those, more than 554 were also analyzed for 14 other metals, including copper, nickel, tin and zinc. But only trace levels of those metals were found.

The EPA considered seven cleanup plans, all of which called for temporary evacuation and demolition of the Abex foundry. The final plan also calls for disposing of 74,436 tons of soil, pumping out contami-

nated groundwater and monitoring lead levels in the air.

Under existing law, the EPA can take legal action to force Abex to pay for the cleanup or it can pay for the cleanup from its Superfund money and seek reimbursement. Either way, the cleanup will go forward.

After meeting with city officials and affected residents, the EPA will begin working on maps and specifications. No starting date has been set, but the cleanup is expected to take about a year.

In the meantime, the plan calls for temporarily relocating 62 families at a cost of \$2,000 each. No details have been released about when, where or how the families will be moved.

City officials will be briefed at Tuesday's City Council meeting, said Learne Nurse, EPA community relations coordinator. The EPA is also planning to meet with residents

at the Washington Park Community Center in the recoming months, said city spokeswoman Carel Pratt.

Several of the residents went to court in June asking to be relocated at the city's expense until the clean-up is completed. A federal court judge in Norfolk is still considering that request.

The families of 16 of the children found to have "mildly elevated" lead levels in their blood also filed a law suit, seeking \$5 million each from the former and present owners of the bronze foundry.

The lawsuits mante the former Abex Corp., which is now a New Hampshire-based acrospace manufacturer, and Heliand investments Manufacturing Co. Inc. of Suffolk, which now owns the site.

The families are suing Abex for \$3 million in punitive damages and both Abex and Holland Investments for \$2 million in compensatory damages.

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PUBLIC NOTICE

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ANNOUNCES LOCAL GROUP'S INTENT TO APPLY FOR A TECHNICAL ASSISTANCE GRANT FOR THE ABEX SUPERFUND SITE PORTSMOUTH, VA

The U.S. Environmental Protection Agency (EPA) has received a letter from P.A.R.I.S. (People Against Ruthless Injustices in the System). The group intends to apply for a Technical Assistance Grant (TAG). The Technical Assistance Grant program promotes public involvement in decisionmaking at Superfund sites. Through the TAG program, EPA offers up to \$50,000 to qualified citizens groups to hire independent technical consultants. The consultants interpret data and assist the public in understanding technical data during site cleanup. EPA awards only one grant per Superfund site. Therefore, the agency encourages all individuals and groups to join together in applying for a grant. Any groups interested in joining P.A.R.I.S. in applying for a TAG should contact:

Ms. Jo T. Silva
Executive Director
P.A.R.I.S.
P.O. Box 6154
Portsmouth, VA 23703

However, any group that intends to file a separate application must notify EPA of their intent to apply for a TAG within 30 days of this announcement. Separate applications from all interested groups will then be accepted for an additional 30 days. Subsequently, EPA will evaluate all applications and award a grant to the group that best meets the program requirements. Letters of intent to apply for a TAG should be sent to:

Ms. Leanne Nurse (3EA21)
Community Relations Coordinator
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107

For additional information regarding the TAG program, contact Ms. Nurse at the above address or call her at (800)438-2474.

Copies of the <u>Superfund Technical Assistance Grant Handbook</u> and a pamphlet entitled Superfund Technical Assistance Grants are available.

9/28/92

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LOCAL NEWS

EPA buys time on lead report for Portsmouth housing complex

By C.J. Clemmons
Staff Writer

7/15/92

NORFOLK — A federal judge has given the Environmental Protection Agency until the end of the month to complete a report on how to clean up the lead-contaminated soil in the Washington Park housing complex in Portsmouth.

During a pre-trial hearing in Norfolk on Monday, District Judge Robert E. Payne told EPA representatives that the report needs to be available by Sept. 30 so that proceedings can move forward on an injunction Washington Park residents had filed in June.

The report, known as the Record of Decision, had been due last Friday, but EPA officials said Monday that the process was taking longer than anticipated.

"I want assurance from the EPA that action will take place by that date," Payne said. "All too often, the EPA believes : that there's always another day."

Soil in Washington Park, which is home to 457 residents, was contaminated by the Abex Corp., a bronze foundry that operated there from 1928 to 1978. The area has been designated a federal Superfund site, making it a high priority for cleanur.

The residents have asked to be relocated from the housing project at government expense until the cleanup has been completed.

Fourteen boys and seven girls have tested positive for abnormal or "mildly clevated" lead tevels in their blood. Non- was considered a medical emergency, but at adv exposure to lead can cause a closteal disorders in children.

Michael V. Hernande..., a Regent University law professor who represents the residents, said that once the Record of Decision is available, he will decide by Nov. 2 whether to amend the current class-action suit or drop it and file individual suits.

An initial soil removal was completed July 17, but the entire cleanup may take as long as four years and cost \$16 million.

"The EPA is considering relocation (of the residents)," Hernandez faid "There are some very definite arguments to be made for that



Fax 1-215-597-0961 Fax "

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"The EPA is considering relocation (of the residents)," Hernandez said. "There are some very definite arguments to be made for that move."

The Record of Decision will be available at public libraries and in the Washington Park management



U.S. require children to get lead tests

Almost all on Medicaid will have to be screened, but the blood tests allowed might not be accurate.

By Robert Pear New York Times News Service

WASHINGTON — Responding to new medical con-cerns about the harmful effects of exposure to even low levels of lead, the federal government is requiring that virtually all young children on Medicaid be screened for lead poisoning.

But the federal directive allows states to continue using a test known to be inaccurate in measuring low

ievels of lead in the blood.

The policy reflects the conclusion of federal health officials that levels of lead once thought to be sufe can cause mental retardation, learning disabilities, stunted growth, hearing loss and behavior problems in children.

"All children ages 6 months to 72 months are considered at risk and must be screened for lead poisoning," say the instructions from the Federal Health Care Fi-nancing Administration, which supervises the Medicaid program for low-income families.

Lead poisoning is a common child health problem in the United States. The government says it afflicts 3 million to 4 million young children - one in six youngsters under 6 years old.

The highest risk occurs among low-income children, many of whom live in old inner-city housing with peel-

ing lead-based paint,

It's unknown how many Hampton Roads homes and businesses have lead in thom, but it can be assumed that most built before 1970 have some. The problem is for more common in Portsmouth and Norfolk than in Virginia Beach, where much of the housing is new, But the government emphasizes that "no socio-eco-

nomic group, geographic area or racial or ethnic population" is exempt from the risk of lead poisoning.

In Portsmouth's Washington Park public housing complex 21 children recently showed "mildly elevated" levels of lead in their bloodstream from playing in an area contaminated by a new defunct foundry.

Thirteen families have filed \$5 million lawsuits each against the company that owned the foundry and the company that now owns the land, claiming that residents were not warned about the danger.

The new directive for testing will affect hundreds of thousands and eventually millions of children. More than 6 million children under 6 are on Medicaid. Experts say that lewer than half have been screened for

lead polsoning

Medicald is jointly financed by the federal government and the states. If Modicaid recipients suffer lead poisoning Medicaid usually pays for treatment and may pay to identify the source. Private insurance also pays for some lead screening. But Medicaid and private insurance usually do not pay for removing point, and it is often unclear who is responsible for cleaning up. In October 1891, the Public Health Service said there

was "overwhelming and compelling" evidence that childron had been harmed by lead in concentrations as low as 10 micrograms per deciliter of blood. The test widely used for the past 15 years is not sensitive enough to detect levels that low.

But "states continue to have the option" of using the

cheapor, less accurate test under the new standards.

Sara Rosenbaum, an export on child health at the George Washington University Center for Health Policy Research, said "By not insisting on the more accurate test, the government is, in effect, sanctioning a lower standard of medical practice and telling states they don't have to pay for a more rigorous standard."

Note: Keporier ich in vograms per

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OBITUARIES/02

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BUSINESS/É

A second generation battles lead poisoning

A decade after the first suits, 13 more Portsmouth families head to court.

By C.J. Clearamons Staff writer

PORTSMOUTH - Ten years ago, a stranger walked up to Lois Owens' home in Washington Park and effered her \$500. That's when she knew something was wrong.

"They started off with \$500 and kept going up and up. That's when I knew something really bad must be going on," Owens said Hers was one of five families paid a total of \$45,000 in out-of-court settlements by Abex Corp. The now-defunct bronze and metal operation left enough lead in the Washington classified a Superfund site, which qualifies it for Environmental Protection Agency money set aside to deal with severe toxic waste clean-

Ten years later, the families of another generation of Washington Park children are going after Alex, this time to the tune of \$65 million.

Thirteen families whose children recently tested positive for lead poisoning have each filed \$5 million lawsuits in Pertamouth Circuit Court. The suits seek damages from Pineumo-Abex Corp. (formerly About and Holland Investment Manutacturing Co. Inc., which now owns Washington Park.

The lausuits allege that the two companies failed to ware residents about the dangers of lead exposure and continued to operate knowing there was a risk

Tarrilles have moved in and out of the housing park over the years but no warning was issued until this Park community for the area to be year," said Richard Serpe, who rep-

resents the 13 families in the latest round of lawsuits. There's not even a sign warning residents to keep the hids out (of the old foundry site). It's a diserace.

The foundry was incated between Seventh and Green streets near Washington Park and Effingham Playeround, where many children are believed to have been contaminates.

Of the \$46 tests recently completed on adults and etilidren in Wash ington Park, all but four tests have been returned. Twenty-one children — 14 boys and seven girls showed abnormal or "tribly cleveled blood lead levels. Their results

lead per liter of blood. The bighest acceptable lead level in children to nine micrograms of lead per liter of Mood. Above that a

child is considered to be lead



Kevin Milchall, 17, was 2 when his mother flegins, right, discovery The was suffering from land polsoning. They leter finited it to taxins I from see LEAD, Page D4 by a metals foundry near their Washington Park neighborhood.

LOCAL NEWS

EAD

ntinued from Page D1

But city officials said the test reits are no cause for alarm.

"There is no imminent danger of or limb," said Dr. Venita Newbyvens, director of the Portsmouth ealth Department. "We have esplished that there is a hazard in a area. The question is whether are is an imminent risk."

But residents and others aren't ving the city line.

"No matter who says what, this id is something to be concerned out," said Regina Mitchell, who ceived a \$1,474 settlement from sex in 1983.

Serpe, whose Norfolk law firm ecializes in environmental cases, id some of the children are being tested at the Children's Hospital The King's Daughters in Norfolk. He said the new lawsuits against sex are strong cases, especially see the corporation has been seting out of court with Washington ark residents since 1981.

That's when Mitchell was able to ik her son's surly attitude and or appetite to the high lead levels it by Abex.

Mitchell's son Kevin was 2 in 1977 hen he was hospitalized with lead isoning for nine days at Portsouth General Hospital, she said.

Kevin Mitchell had lead levels as gh as 53 micrograms per liter of ood before he was hospitalized, wo other children had lead levels

58 micrograms, while others at the time had test results of 30 and imicrograms per liter of blood. At the time, most of the children com-

)NING

According to the Centers for Disease Control, there are six classifications of blood lead concentration for children based on micrograms of lead per liter of blood:

Level	Treatment		
9 or less	A child is not considered to be lead poisoned. No treatment is necessary.		
10-14	No medical treatment is necessary. Children in this category should be screened every three months and their diels and home environments assessed for sources of lead.		
15-19	Same treatment as the previous category except children should be screened once a month.		
20-44	A complete medical evaluation is needed as well as home and dietary assessments		
45-69	Begin medical treatment and environmental assessment within 48 hours.		
70 or more	Begin medical treatment and environmental assessment immediately.		

plained of medical problems including nosebleeds, lack of appetite, sleeplessness and mood swings.

And lately, Mitchell has watched with anguish as more families in Washington Park have discovered that their children too, have lead in their bloodstreams.

"A lot of people feel the lead is why a lot of the kids make bad grades and are tired all the time," said Mitchell, whose son is now 17 and in good health.

Lois Owens, 49, said that even though she received a settlement from Abex, she has always "been suspicious" of the manner in which it was handled.

That suspicion continues to haunt the city today.

"I don't know what we can do to win their confidence," said Carol Pratt, the city's public information officer "Ail we can do is be honest, and that's what we've been doing."

But the latest round of suits is just one manifestation of the community's skepticism.

A class-action civil-rights lawsuit, seeking unspecified damages for mental stress was filed last month in Norfolk's federal court by Washington Park residents. A federal judge delayed a ruling on the matter until after a hearing on Sept. 11.

"I do not trust the city," said one resident who asked not to be identified. "I think they're lying, and I think the Health Department is lying."

Heightened concern about the recent testing is warranted, said Gregg Leeman, public health adviser for the national Centers for Disease Control.

"The parents must be concerned about their children's health," the said. "That's understandable.

"Any reading between 10 and 14 shows those tested are having a reaction to lead in their blood."

The lead problem in the area was first acknowledged by the city's Health Department in 1977, after a lead detection test was given to children in the area as part of a preschool checkup.

Medical evaluations at the time showed that all the children involved had substantial traces of lead in their systems.

Attorney Michael Blackman, who represented five of the children in the 1983 case, said the previous settlements — which ranged from \$1,000 to \$12,000 for each family — were arranged before the case went to trial.

Abex paid, but denied that the children suffered lead poisoning, and refused to comment on why the company agreed to settle with the families. The settlements were made with the stipulation that the families could not sue Abex for further damages.

Serpe, who makes daily visits to Washington Park, said despite the settlements, residents feel abandoned.

"These are families that are trapped because they can't afford to pull up stakes," he said. "Any person with resources would be out of there by pow."

Owens, who has lived in the area for 27 years, has seen calls for blood testing come and go. In 1981, she received \$19,000 from Abex for her two daughters.

The Portsmouth Times

Thursday, August 27, 1992

SERVING THE CITY OF PORTSMOUTH

Oth Year No. 14 25 C

Washington Park blood lead tests returned

16 of 344 tests "mildly elevated"

By M.J. RICHARDS Portsmouth Times Staff Write

The results of blood tests on 540 present and past Washington Park residents exposed to lead have started coming back to the Portsmouth Health Department from the state laboratories in Richmond.

Sixteen of the 344 tests returned show "mildly elevated" lead levels, all in children between the ages of 2 and 11. This means that about four percent of the returned tests are one step above those that are not lead poisoned.

Dr. Venita Newby-Owens, health director for the Portsmouth Health Department, said her goal is to assess whether there is a medical haz"Certainly, there is a lead hazard there. The question from my perspective, is whether the people who live there have been affected medically."

Dr. Venita Newby-Owens, Portsmouth Health Department

ard to those exposed to the Pneumo Abex Corporation Superfund site on Green Street in Washington Park.

Abex, which manufactured railroad car parts from 1928 to 1978, has spent nearly \$28 million cleaning up lead contamination in the community caused by lead particles carried through the air. Some sources also say that lead was dumped near the site.

"Obviously, there's a hazard there, or it would not be placed on the superfund list and EPA (Environmental Protection Agency) would not be down here . . . Certainly, there is a lead hazard there," said Newby-Owens, "The question from my perspective, is whether the people who live there have been affected medically."

Newby-Owens could not pinpoint the amount of money spent by the city's health department on the testing.

Ed LeFevre, director of the Bureau of Chemistry at the division of Consolidated Laboratories, General Services Department for the state of Virginia, said the tests cost the state approximately \$7 per sample,

when done in batch quantities of

"It was quite an impact as far as workload for us," said LeFevre, from his Richmond office. "We went to working seven days a week." He said the two laboratory technicians try to complete sample results within 24-hours of receiving them to maintain accuracy.

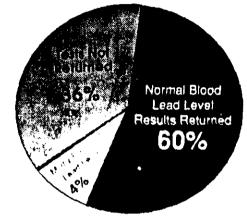
"Also, if you find out you don't have a problem, it reduces your anxiety sooner," he said.

In blood lead testing, there are five classes, or levels, in which results are classified. They range from class one, which is lowrisk, to class five, a medical emer-

Of the Abex site-related tests that have been returned, all were categorized in classes one and two.

See WASHINGTON, Page 6

Washington Park Blood Lead Testing



Preumo-Abex Corporation Superfund Site-related blood lead tests were conducted between July 15 and August 10 by the Portsmouth Health Department. The tests were given to former and present residents of the Washington Park Area and other superfund related areas.

VMA installs Al Street as new president

12-year member chosen by his statewide peers

"Sizzling Summer Slumber"



Concerts provide a TV alternative

The intent was to get people to visit downtown area

"It has helped downtown because it brings people with Virginian Pulot 8/29/90

SECTION



CLASSIFIED/D6

Property near housing site contains lead

Abex Corp. land added to EPA list

y Colean Hand Staff writer

PORTSMOUTH - A lead-contaminated lot next to one of the city's public housing projects was added Tuesday to the Environmental Protection Agency's priority list of hazardous waste sites to be cleaned up.

The Abex Corp. property off 7th Street was among the 106 sites, including 23 federal government facilities, added to the Superfund list. The Abex site was the only one in Virginia to be added to the cleanup

Once a dumping ground for foundry materials, the Portsmouth site drew the attention of federal officials in 1986, when it was declared a "significant threat" to public health

Soil samples taken in 1986 re-vealed high levels of lead in and around the one-acre lot. Lead concentrations up to 42 times the nor-mal level were found in some yards of the neighboring Washington Park housing project, home to 160 families

An EPA spokeswomen said Tuesday that Abex has agreed to con-

termine the extent of pollution, ne potential hazards to residents and the most effective method of cleanup. That investigation should begin within the next couple

E LOZUNDS OF LEAD

What it does, Lead, when ingested or inhaled by children, can cause learning disabilities, nerve damage, kidney problems or death. How much hurts. The Centers for Disease Control in Atlanta has found that frequent exposure to as little ; as 500 to 1,000 parts per million of lead can cause elevated blood levels in children, resulting in a longterm risk to the central nervous system. Local cases, Last year, 215 🤌 new cases of lead poisoning - 10 of them in Portsmouth and 37 in Norfolk - were diagnosed in children living in Virginia.

months, to the track the face to the Eventually, the EPA, with public input, will recommend a long-term solution for cleaning up the proper-ty. Abex has not yet agreed to per-form the permanent cleanup. Abex officials could not be reached for comment Tuesday.

A number of factors, including the site's location in a densely populated area and the potentially lethal effects of lead on children, made the

Abex site eligible for inclusion ea the Superfund list, said Learner & Nurse, an EPA spokeswoman. "What we know about lead now shows that it is far more dangerous

Please see LEAD, Page DG

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continued from Page DI

than what we knew a few years ago," Nurse said.

Last year, 215 new cases of lead polsoning — 10 of them in Portsmouth and 37 in Norfolk — were diag-

nosed in children living in Virginia.

Lead, when ingested or inhaled by children, can cause learning disabilities, norve damage, kidney problems or death. The Centers for Disease Control in Atlanta has found that frequent exposure to as little as 500 to 1,000 parts per million of lead can cause elevated blood levels in children, resulting in a long-term risk to the central nervous system.

Although the specifics of the cleanup will not be known until the site study is completed. Nurse said the effort will cost "a lot of money and a lot of time."

In 1988, Abex volunteered to perform a short-term emergency cleanup ordered by the EPA. Some contaminated soil was excavated, curbings were installed, the dirt was capped with clay and the site was paved with asphalt and fenced. About 40 trees were cut down in the Washington Park complex, where contaminated soil

was removed and replaced with clean soil.

The discovery of high lead levels in the Abex lot prompted local health officials to launch a massive door-to-door screening for lead poisoning. More than 700 children were tested. However, of the 38 youngsters with elevated lead levels, none lived near the Abex site.

Until 1978, Abex had operated a foundry next to the contaminated site for most of the century. Furnace sands containing heavy metals were disposed of on the

Property.

Tuesday's additions to the Superfund list bring the total number of sites nationally to 1,187, including 116 federal facilities, mostly Dofonse Department Installa-tions. Placement on the list makes non-federal sites eligible for cleanup aid under the federal Superfund law. The program, established in 1980 to help clean up toxic waste sites, is supported primarily by taxes on the chemical and oil industries.

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Washington Park tests returned

☐ Continued From Page 1

When health department officials evaluate the lead screening tests, certain procedures are followed for medical care.

Newby-Owens said individuals in class one are "not considered to be lead poisoned and (are) not considered to be in need of treatment."

Class two. however, is "mildly clovated," and requires a rescreening for lead in three months. The health department goes through an environmental history with the child's parent or guardian, as well as nutritional counseling.

"We would do nutritional counseling so parents would know what foods to give their children in order to help lower lead levels and lower risk of blood poisoning," said Newby-Owens.

These dietary instructions include foods rich in vitamin C and iron, especially fruits and vegetables. A change in diet does not have an immediate effect, she said, but does help over a period of time.

"Each patient is different in how they would respond to a particular treatment," said Newby-Owens.

Parents of children in the upper levels of class two are also given counseling on reducing household lead hazards, such as cleaning off lead dust that collects on walls and toys.

These children are also rested for iron deficiency in their blood, which could lead to anemia.

The third class lead level is more serious, and medical evaluations and follow-ups are followed similar to class two patients. In addition, a behavioral and developmental history is discussed with the parents to identify the specific effects and hazards to which the child is exposed.

"We would look at lead paint, water, soil and we would look at any other risk, like an occupational hazard," said Newby-Owens. "We would proceed to eliminate these sources from the environment."

In class four, hospitalization and

□ See WASHINGTON, Page 9



The National Night :- Portsmouth's celebri



Clowns and cotton candy cently held at Riverto



CRIME REPORT

Police seek information on Gary Copeland's murder

Suspects left Avondale Road, Riddick Drive

Portsmouth police homicide investigators are asking for the community's help in solving the murder of Gary Darnell Copeland.

On Saturday, August 8 at around 1 a.m. 22-year-old Copeland got into an argument with several other persons at the intersection of Avondale Road and Riddick Drive.

A fight broke out, and Copeland was severely beaten about the head and face with an object.

Several shots were fired from one of the assailants and Copeland fell to the ground. Police and rescue units responded to the scene. Copeland was rushed to Sentara Norfolk General, where he died as a result of his wounds.

A dark-colored vehicle was seen in the area at the time and investigators believe that he suspects may have fled the area in it.

Anyone who has information as to why Copeland was murdered, or has any information on witnesses or any person who may have been involved may call Portsmouth Crime Line at 488-

All calls are confidential and callers are never required to reveal their identity of testify in court.

Crime Line pays cash rewards of up to \$1,000 for information solving crimes, leading to the arrest of wanted persons, or that result in the recovery of stolen property or drugs.



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Emoval, people's lead levels hopped by an average of only onemillionth of a gram per 3.39 ounces

from lead-cnetaminated areas like Washington Park might not be the most effective cleanup procedure, an Environmental Protection Agest-PORTSMOUTH - Removing soil

TEL - Sc

ten shows that removing soil did of help the health of residents— specially children—as much as The study showed that after soil officials announced this week. A five-year study of Boston chil

area surrounding 152 homes, where At the onset of the Beston study

after soil was taken from about a

questions

fund cleanup of Washington Park will solve the lead contamination problem — a problem residents have lived with for more than 18

three sources of lead poisoning, fol-lowed by tap water from lead pipes

junction against Abex, the city of Portsmouth and the EPA to stop

the cleamp until authorities pay to

relocate them.

But Bill Dunnell, project manager

"We're not at the point yet where we can reach any conclusions," said Sternberg. The EPA also is doing studies on the affects of soil remov-al in Baltimare and Cincinnati. years.
But David Sternberg, EPA community relations coordinator, said it
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The lead in Washington Park was left behind by the Abex foundry, which operated there for 50 years beginning in 1928. Abex recycled railroad parts by melting them.

An initial cleanup ended July 17 More than 300 people in Washington Park took blood tests for lead levels last month. The results of only about half those tests have been returned, and so far 18 chill

for Geo Engineering — a New Jersey-based company bired by Abex — said soil removal "bas proven effective on a number of projects." In light of the Boston findings, the EPA has devised a plan to look not

only at soil removal, but at dust, paint and drinking-water.
Blood screenings will offered free Saturday at the Washington Park

grams is considered lead poisoning.

Lead in the soil is one of the top

project and the Ellingham Play-ground near Seventh and Green streets. In June, a group of Washington Park residents filed for a federal in-

POR SHOUTH STATE

DRIVER SHOT: A 35-year-old Cradock man was pulled out of his car and beaten Friday, but escaped his attackers by jumping into the bed of a passing pickup. The truck's driver was shot in the leg.

The Cradock man, whose name was not released, told police hé was taking Seventh Street on his way to the Downtown Tunnel about 12:45 a.m. when six men jumped in front of his car in the 300 block.

The man said he tried to keep driving but was dragged from the car, kicked and beaten by the men, who he said were trying to rob him. When a Pinkerton Security Services pickup drove by, he tried to flag it down.

The driver, a 39-year-old Virginia Beach man who was making his rounds of security sites, slowed down to see what was going on and the Cradock man jumped in the truck's bed.

One of the would-be rebbers ran after the truck and fired several shots, hitting the security worker twice in the leg. The security worker, whose name also was not released, was treated at Portsmouth General Hospital and released-The Cradock man received bruises and cuts.

James F. Davis, a destrict manager for Pinkerton Security Services in Norfolk, said his company had no other problems in the area.

"We're all sad that he got injured, (but) he may well have saved someone's life by being there," Davis said.

No arrests have been made.



alue of cleaning lead from soil qu

Staff Writer

PORTSMOUTH — Removing soil from lead-contaminated areas like Washington Park might not be the most effective cleanup procedure, an Environmental Protection Agency study says.

A five-year study of Boston children shows that removing soil did not help the health of residents especially children — as much as was expected, federal environmental officials announced this week.

The study showed that after soil removal, people's lead levels dropped by an average of only onemillionth of a gram per 3.39 punces of their blood.

These findings raise questions

about whether the federal Saperfund cleanup of Washington Park will solve the lead contamination problem — a problem residents have lived with for more than 10 years.

But David Sternberg, EPA community relations coordinator, said itl? is too soon to determine whether the findings in Boston will affect the situation in Portsmouth.

"We're not at the point yet where we can reach any conclusions," said Stemberg. The EPA also is doing studies on the affects of soil removal in Baltimore and Cincinnati.

At the unsel of the Boston study, researchers removed soil from an area surrounding 152 homes, where children had lead levels of seven to 24 micrograms of lead in one deciliter of blood. Ten or more micrograms is considered lead poisoning.

Lead in the soil is one of the top three sources of lead poisoning, foland lead-based paint & Albana & E More than 300 people in Washing ton Park took blood tests for lead levels last month. The results of only about half those tests have been returned, and so far 10 children have were shown to have "moderately high" lead levels.

The lead in Washington Park was left behind by the Abex foundry. which operated there for 50 years beginning in 1928. Abex recycled railroad parts by melting them

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Blood screenings will offered free Saturday at the Washington Park Community Center.



Rod O'Flaherty talks at a raily

Ever

By Esther More Staff writer

CHESAPEAL may have had presidency, but aire still casts : dedicated supp Thursday to sta paign inspired cisms and can-

The campaig in a nearly en (va' Bridge ? The aceting 7 p.m., but at k advertised to 7:30 p.m., so e end if more now

continued from Page D1

with money raised from private sources, ODU President James V. Koth said. State funds probably will not be available, he said.

Although ODU officials won't estimate the cost, similar facilities at other schools have cost \$10 million ordnore.

Student, alumni and faculty leadere all have endorsed the proposal in recent months, as did Koch.

Il believe there is a need for a faëlity like this," Koch said. "I hope it will be built during my tenure."

Slichele Hensley, president of the **ODU Student Senate, expressed her** approval of the project at a recent ONU board meeting as did stu-

who served on a panel last g that was asked by Koch tomine the possibility of constructing a convocation center.



An artist's sketch of what the arena might look like.

The panel, which included faculty members, administrators and alumni, was formed to help ODU judge the performance of an NCAA pilot certification program, in which every facet of the school's athletic department was examined for compliance with NCAA rules.

One of several suggestions made by NCAA officials during the certification process was that ODU U. a convocation center. Koch t¹ asked the group to study the issan

"They said it is something we

should seriously consider." Jarrett said.

ODU's basketball team calls Scope its home court, but has had problems in recent years in obtaining dates at the 10,258 seat downtown Norfolk arens. ODU will play eight games at St. . seven at its on-campus, 4,800 seat fieldhouse d another at the Hampton Colise-

this season. Jarrett says the ODU fieldhouse isn't adequate for on service domain on a permanent basis and wouldn't be adequate even if it were expanded. Koch says it wouldn't be adequate for other activities, such as concerts.

Jarrett said the size of the convocation center hasn't been determined, but said it will seat a minimum of 8,000 speciators for basketball and 10,000 or more for lectures and graduation ceremonies.

Some ODU officials are lobbying to have more than 10,000 seats for basketball.

"We could live with anything from 8,000 up," Jarrett said. "How much higher it will go I would think will depend on how much it will cost and what university officials determine is needed for activities on campus."

"That will all be studied wher time comes. Obviously, there's of work to be done between no. and then "

VP-LS 8/4/92

EXPERIENCE OF THE

FREE LEAD TESTS OFFERED: Free blood lead tests will be provided by the Portsmouth Public Health Department for residents living near the Abex Superfund Site.

the Washington Park Community
Center, in the 1400 block of Ei-

fingham St., from 9 a.m. to 1 p.m. Saturday. Children under 18 must be accompanied by a parent. Call 393-8585, ext. 202, for more information on lead testing.

In addition, a public meeting will be held at 7 p.m. Aug. 26 at Portsmouth City Hall to address citizens' concerns about lead contamination and the Abex Superfund Site. Call 393-8432 or 393-8641 for information about the meeting.



man Glenn Davidson, who multed the numbers for several hours before announcing that Wilder had no comment.

Back in January, a poll by Mason-Dixon Political/Media Research showed that 51 percent of registered Virginia voters thought Wilder was doing a poor job.

Shortly afterward, noting that his constituents were unhappy. Wilder decided not to seek the Democratic nomination for president.

His poll numbers rehounded: The "poor" category dropped to 28 per-

cent by April and then to 23 percent last month, when his "good" and "excellent" ratings totaled 35 percent.

SOURCE: Meson Diana Political Media Research

This month, only 28 percent rated Wilder's performance as good or excellent.

The numbers place Wilder 30th on a list of 34 governors recently graded in polls.

"I think his latest foray into na-

tional politics has cost him considerably," said political analyst Robert Holsworth of Virginia Commonwealth University, referring to Wilder's "dalliance" with the idea of running for vice president alongside Ross Perot.

Add to that the negative publicity about Wilder's efforts to bring the Redskins to Alexandria, Holsworth said, and there is misery not only

cation of how much power he has lost in Virginia."

As has been the case in all polls about Wilder, though, the governor is in much better standing with black voters than with white voters. Sixty-eight percent of black people surveyed said Wilder's performance has been good or excellent, and only 3 percent rated him as poor.

Among white voters, only 20 percent gave good or excellent grades and 47 percent judged Wilder's job

ly declared bankruptcy.

Spencer is chairman of the tecture department at I University; Walker was chaite board of trustees for Z tist Church in Hampton promised Wallace the designation.

The plaintiff, George #

Wallace, is enul ed to the

hie damages - or

\$600,000 -- because his

stat involved a conspiracy of

blacks said Wallace, who

was victimized by John H.

and Elbert V. Walker Jr., p

in the Livas Design Group

folk, a black-owned firm tha

The jury of three whites

"It has been a very bad f for me, and today a jurpeers said I was right.

Injured : still in cr

Staff report

NORFOLK — The sailer injured Thursday when a fire-extinguishing system tally discharged remained condition Friday.

Fireman Donald Bello Holt, Mich., was the on three men to survive the a about 1:30 p.m. aboard landing ship Sumter. He r

Chesapeake traffic rerouted after oil spill

Staff report

CHESAPEAKE — Hydraulic of released from a Southeastern Public Service Authority truck slowed traffic on George Washington Highway for about 90 minutes Friday afternoon, but traffic cleared before rush hour.

The spill began in the southbound lane at the Portsmouth line and was heavy between that spot and Military Highway, said Capt. William K. Hibner of the Chesapeake Fire Department's hazardous materials team.

A diminishing streak of oil extended south to Interstate 64, where it ended on the interstate near the High Rise Bridge.

A crew from the city's Public Works Department spread sand where the spill was thickest, preventing the spread of oil off the pavement. Southeastern Public Service Authority also brought in a hazardous-materials cleanup company.

There was no damage to the environment, Hibner

Police redirected traffic from 2:17 p.m. to 3:52 p.m.

10 children at housing complex have moderately high lead levels

By C.J. Clemmons

Staff writer

PORTSMOUTH — Ten children who live in the Washington Park area have tested positive for moderately high levels of lead.

Gwen Childs, an educator with the city Health Department, said more than 300 people had blood tests last month to check for lead. Results of 175 tests have been returned on far

The department conducted the tests for people who live in the Washington Park public, housing complex and surrounding area near Green and Seventh streets.

The incighborhood is contaminated with lead left behind by the Abex Corp., which operated a foundry there from 1928 to 1978.

. Health department personnel notified the families of the 10 children during home visits

Friday, Test results also will be mailed.

Childs said having a moderately high level of lead in a person's blood is not a medical emergency, but residents are learful for their health and their children's welfare.

"No medical treatment is required at this time," Childs said.

She said the homes of the 10 children who tested positive will be assessed for sources of lead, and their eating habits also will be studied. The children will be tested again in three months.

"This situation can be handled," she said.

The health department will sponsor another free blood screening for lead on Aug. 8 from 9 a.m. to 1 p.m. at the Washington Park Community Center.

Those who are unable to attend the screening can have the test at the city Health Department, 800 Crawford Parkway.

melin Hlim

Public housing residents warned of lead exposure

By C.J. Clemmons
Stoff Writer

PORTSMOUTH -~ Washington

PORTSMOUTH — Washington Park residents clustered in groups butside their homes Thursday, anxiously discussing lead-exposure test Tessults expected today.

L. Community leaders said some lamilies stready had been notified by the city's health department that their children had "moderately thigh" levels of lead in their blood-streams.

things when the state of the st children for free blood tests July 13, 17 and 25 at the Washington Park "To and 25 at the washington park Community Center. "Everybody is Checky to move out of here now." "Relea Person, who has lived in the public housing complex for 25 years, was inturiated. "I could by an egg on the top of my head," she said. "We just want

the hell out of here."

Soil in Washington Park and the Surrounding area was contaminated with lead by the Abex Corp., a brass and bronze foundry that operated there from 1926 to 1978.

At least two families were notified. Thursday that some of their test resuits showed "moderately high" lev-

els of lead.
"One is an 18-month-old baby,"
sald Radiq Zaldi, a longtime Wash-ington Park resident and president ington Park resident and president of Black Concerned Citizens, a local advocacy group. Zaidi would not give the identities of the families but said he believes others will be getting bad news today.

"The city's been telling us all along that we weren't in any danger," he said. "Everybody's shaken up."

Neighbors said some children had been complaining of headaches. One little girl who supposedly has moderately high lead levels said

"she had been eating mud pies,"
Vincent said.

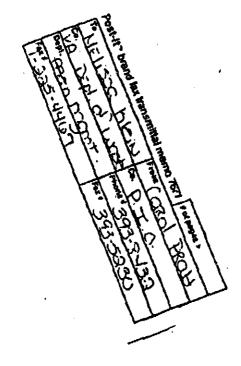
A lawsuit was filed against the city, Abex and the U.S. Environmental Protection Agency earlier this month by Washington Park resi-dents seeking unspecified damages for mental stress.

The residents are also suing to have the city relocate them while the EPA decontaminates their neighborhood, which has been des-Ignated as a Superfund site.

An initial cleanup ended July 17 with soil taken from about a halfdozen spots near the housing proj-

ect and the Effingham Purperound. Experts say a complete cleanup probably will take up to four years noillim 81¢ bna,

Another public housing on the matter is scheduled for Aug. 26 at





PORTAMONTH TIMES

h Times

Vol. 10 No. 9 25 Cents

Abex site not a "screaming emergency"

Case workers discuss lead contamination

By M.J. RICHARDS Portsmouth Times Staff Writer

The planned lead excavation work on a playground across from the Pneumo Abex Corporation in Washington Park is nearly complete.

After an injunction for the discontinuation of the work, which is
evacuated
performed by subcontractor
MAECORP, was rejected by a fed-

eral judge, workers removed leadcontaminated soil from the playground and other "hot spots," and replaced it with fresh sod and soil.

Last week, residents of Washington Park also filed a class action suit against the Environmental Protection Agency (EPA), Virginia Department of Waste Management, (VDWM), Pneumo Abex Corporation, MAECORP and a few other agencies in hopes that the federal government will step in, and possibly help the residents to be evacuated.

🛚 See ABEX, Page 🖟



Abex site not a "screaming emergency"

☐ Continued From Page 4

Nurse said her cases differ mostly in danger, size and nature of contamination. She said that this is not as complex as some others, because there is only one contaminant, lead, present in the soil. The are, a 700 square foot radius from the building on Green Street, is also smaller than others,

She said there are people involved with other sites that are more active than the Washington Park residents. There are citizens groups to monitor the site, Some have task forces, there are U.S. senators demanding weekly updates and other government factions involved. Nurse said some of these sites are also more dangerous than the Abex site.

But, is the Abex site life threatening, as some residents previously stated?

"It's life-threatening, or life-affecting, in the fact that there is an increase in the future if we don't get it (lead contaminated soil) out of here soon," said Nurse.

Nurse said that "it's not a screaming emergency. We have one contaminant in concern."

However, she said Washington Park residents have every right to be upset.

"If you were to live here next to the site, it's sure as shootin the most important thing in your life," she said. risk

_ead-contaminated area's residents may be relocated

By Alec Klein

Staff writer

n

PORTSMOUTH — Impassioned pleas Tuesday from public housing tenants in a lead-contaminated neighborhood have prompted city and federal authorities for the first time to consider relocating them.

More than 20 tenants appeared before the City Council to express their fears of being contaminated during a temporary cleanup ordered by the U.S. Environmental Protection Agency. The EPA has labeled the area a Superfund site, one of the nation's worst hazardous waste dumps.

The site is the former location of Abex Corp., which operated a brass and bronze factory until 1978. The contaminated area encompasses part of downtown as well as the housing complex.

"How do you think we as taxpaying, law-abiding citizens feel?" said Helen M. Person, a longtime resident. "... We're human beings. We're raising the children of tomorrow."

Sabrina Benson, another resident, told the council, "I would like one of you to walk through Washington Park to see that you care. You have to see it with your own

eyes.

The area has been thrown in disarray recently while authorities conduct the clean-up. Areas of the 457-resident Washington Park complex have been dug up, a sewage line has burst, and children have continued to play in areas intended to be cordoned off, residents said.

Tenants said they didn't know whom to believe or what was being done to correct the problem.

"They tell us one thing, then do something else," one resident said of city, state and federal authorities.

The temporary clean-up is expected to be completed Friday, when officials will begin the lengthy process of deciding on a permanent solution to a problem that already is 11 years old.

EPA and city officials said they would consider paying for residents to move to a safer location during the permanent clean-up, which is not expected to begin for at least another year.

For now, however, city officials assured residents that they would organize a meeting to keep them better informed. The city is conducting blood tests in the neighborhood today and Friday for residents concerned about lead contamination.

-92 VAGNIAN PLOT & LEBGEN-STAPE

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THE PORTSMOUTH

ESTABLISHED 1977

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LEAD CONTAMINATION

esidents of the Washington Park public housing project have been assured that lead contaminating the soil around their homes is not a threat to their health. They don't believe it

Environmental scientists and public health officials say the lead, left there by a foundry that operated on the site for half a century, won't harm anyone if reasonable care is taken. That expert opinion means little to mothers who have been sending their children out to play on the contaminated land for years. They are not interested in scientific opinion; they want out.

A small but vocal group of Washington Park residents has demanded that neighborhood residents be moved elsewhere at government expense. They are not confident that the area is sale or that it will ever be sale again, a view one woman reflected when she declared, "You can't clean that stuff up. This is a wasteland."

The protesters are not toxicologists or chemists. They have no scientific evidence to back up their claims. Their fears appear to be based on little more than suspicion and mistrust.

Some of their misgivings can be explained by the confusing advice given them by authorities. On one hand they have been told that the lead poses no threat to their health, and on the other hand they have been told to wash their hands thoroughly after any outside activity and to keep doors and windows shut tight during the cleanup operation.

Any decision to evacuate the neighborhood must be based on scientific evidence, not on the residents' apprehensions. If they are in no danger, the request to be moved is unreasonable.

But it doesn't follow that their fears should be ignored. They are entitled to understand how the problem affects their lives and to have confidence that they would not be permitted to stay in Washington Park if it wasn't sale.



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Residents fear for their lives near toxic site

Public health is at issue: "dirty" site to be cleaned

By M.J. RICHARDS WE SEE ANY Postumouth Times Staff Whiter

Helen Person is anary and spect. · Person, 68, lives one block from the Pacemo Abex Corp. foundry on Green Street in Washington Park. She has lived there for 28 years.

Person and many of her neighbers are concerned about bad curtermination from the foundry, which operated from 1928 to 1978 enaking journal bearings for milened cars. Parts for militard cars were melted in the building's famace, where lead

หรับ (สากกระทั่งเกราะ **หรือสิริ** Music and art series spices up afternoon "Concerts in the

neighborhood, contaminating the sail where reportedly 457 people

The Abea foundry, which is now closed, was soil tested with a 700foot radius in the surrounding acigliborhood. Several "hot spots," or areas with more than 500 partsper-million, were found to contain dangerous levels of lead.

The company based in Hampson N.H. is responsible for the clean-up of the area. It has already cost approximately \$8 million. with a new-\$16 million project which started this work.

The state Department of Waste Management is helping orchestrate long-term plans for the clean-up.

Person and her neighbors are disting of Course this 22 Market of Contract

Who can keep their children indoors for 13 hours with no windows open and the doors closed? We can't even hang our clothes outside. It's worse than being in jail. At least they (the prisoners) can walk around."

Washington Park resident

satisfied with how the project is planed, and recently met with officials in a public electing.

"The bottom line is; they met with the representatives from the EPA (Environmental Protection Agency), the (Virginia) Department of Wasto Management, there was a toricologist there to surver ques-

maje umbetar via fotenia.

tions about the contamination of -lead and there was also a person from the health department. who said Carol Prest, Pertemonth public informs. tion officer.

Many residents, like Person, are

federal agencies do not have the authority to buy out the area, although Abex docs.

Residents were recently instructed to stay unitours with their doors and ne short for 13 hours. Person

"Who can keep their children to dears for 13 hours with no windows open and the doors closed? We can't even hang our clothes outside," she said. "It's worse than being in jail. At least they (the prisoners) can walk around."

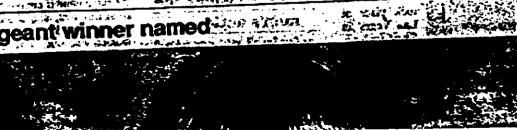
Person described the work site as Senced area with a plastic sheet against the feace to keep lead conterminants from flying through the

"Il's just a horrible situation said Person. "And to think the would have the audacity to ask these people if they would close up in these brick and cinderblock homes for 13 hours?"

Person said that she is well annuc of the dangers of lead poisoning. Steady exposure to lead through togestion, inhabition and skin contact can cause neuronic disorders, brain

Early symptoms include headache, weakness, vomining, irritability, tiredness, stomach ache, sleeplessness, loss of appenie and

() Seu RESIDENTS, Page 3



Summer Olde Towne tours will feature historical community

THE PORTSMOUTH

Published as part of THE VIRGINIAN-PILOT and THE LEDGER-STAR

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are entitled to understand how the problem affects their lives and to have confidence that they would not be permitted to stay in Washington Park if it wasn't safe.





Top Moming," an oil on i is, is part of Ray Herger's Highway Homes

nce and safety of childhood. s containing a group of three, hildren ramble through woods ross streams as they play innoand effortlessly.

thberger explains this series as ing a summer vacation of his hildhood when he and his two consins treely nonmed the ryside, exploring nature and elves through their adventures 3oil paintings softly focus ono, always in action and always as they examine in detail the around there.

other recently completed sereuses on violence and the deion of innocence through fear inger. Normally, Hershberger s quietly in his studio, but durre conception of this particular s he had the radio turned on and

() See RAY, Page 10

☐ Continued From Page 1 weight loss.

More severe symptoms include dizziness, joint pains, staggering, varue abdominal main, convulsions. paralysis, blindness and loss of motor functions.

"It affects the neurological system, there can be brain damage and there are learning disabilities accompanied with it," said Gwen Childs, a health educator for the Portsmouth Health Department. "The children are the ones we're concerned about, because of their smaller size and they're still develcoing."

Person said that only recently did Washington Park residents find out about the dangers from the foundry. She said that, according to an EPA map, she is in one of the "hot spots," as is an area that local children used as a playground. Person

said she never thought there was a reason to be concerned about the Abex plant.

Now she is concerned that she and her four children who erew up in this neighborhood may be in

"All we're asking for is to be moved out of this area where we could go on with our lives."

"You name me one child that since he was born hasn't played in the dirt at least once . black, white. rich or poor," said Person.

The Portsmouth Health Department is offering free lead testing to Washington Park residents, at 800 Crawford Parkway, to determine the extent of contamination.

· Person said she plans to go this

week, with her son, to be tested.

Childs said the blood tests will be sent to a Richmond laboratory. and test results would be available shortly thereafter.

Meanwhile, Washington Park residents are becoming more concerned as the cleanup begins.

"We love our life. We love our : children ... All we've asking for is to be moved out of this area where. we could go on with our lives." said Person. Ann Troutman of the Virginia Department of Waste Management and an EPA representative could not be reached for

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Exhibition at the Wakefield Foundation, inc., Center for the Arts JULY 2-30, 1992, Opening reception July 2, 1992 from 7,30 to 9:00 p.m. at the Center for the Arts, 100 Wilson Avenue, Wakefield, Virginia. The public is cordially invited to attend at no cost. included in the exhibit are works in watercolor, acrylic and oil ranging from marine scenes, landscapes, and wildlife to portraits and prints. Gallery hours are 2:00 to 5:00 p.m. Wednesday through Sunday.

For information call (804) 899-6005.

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--- July announcements to 14year prison sentence for Raymond Lee Wilkerson, 21. Assistant Commonwealth's Attorney Joel Branscom said Wilkerson will be-eligible for parole after serving about four years.

Several in Portsmouth ask EPA to move them

Portsmouth — Several residents of a neighborhood with leadcontaminated soil say the federal government should relocate " them to a safer area and pick up the tab.

Move us out of here. This is a wasteland," said Charlotte Scott, one of about 40 Washington -Park residents who attended a second Meeting Thursday with U.S. Environmental Protection Agency officials.

EPA officials came to discuss cleanup efforts for an area contaminated by the Abex Corp., a brass and bronze foundry that operated there from 1928 to 1978.

House approves money for new Fort Lee building

PETERSBURG — Money for part of an \$18.3 million personnel processing building at Fort Lee: recently was approved by the House of Representatives.

If approved by the Senate, the center will provide one processing place for soldiers coming in and leaving Fort Lee, said Rep. Norman Sisisky, D-4th.

The \$5.3 million for the first phase of the center is part of \$29.4 million in military building projects approved in Sisisky's district.

Limenburg votes budget fliat trius some taxes

LIMBRIUMS -- Luneaburg County adopted a \$13.5 million budget for the 1992-93 fecal year that represents a slight increase over last year's spending

Rejected u

ETY MEL OBERG-OLMI

TIMES-DISPATCH STAPF WEITER

HOT SPRENCE - National union representatives returned to the home office yesterday, but they promised Homestead resort employees that they will continue to monitor working conditions.

"We don't just pack our bags and say, 'Adios,' " said Nancy Wallace, a national union organizer. "We plan to

stay in bouck.".

On Thursday, the Hotel and Restaurant Employees union lost the fourth of four tries to organize workers at the resort, 🛪 🏸 👍

Of the 534 employees eligible to vote on union representation, 178 supported the union and 262 rejected the second second

iname in biografie Medical board delayed action against doctor

THE ASSOCIATED PRESS

ROANDIE - The Virginia Board of Medicine investigated sexual misconduct allegations against a psychiaetrist for nearly two years but did not act until criminal charges were filed, according to testimony at a disciplinary bearing.

The medical board is considering whether to revoke the license of Dr. William Gray, who was charged in Roanoke County last March with sexually molesting a 16-year-old boy. The misdemesoor sexual battery charge was later thrown out because of a lack of evidence.

The board failed to act sooner because it had a hard time finding patients or others willing to detail complaints that could be verified, a board spokeswoman said Thursday.

More are was a ...





2-92 THU 14:09

ing auctioned off because of failure to make payments on a bank loan, Norfolk lawyer Peter G. Zemanian told the Suffolk News Herald on Thursday.

The 2.1-acre movie studio and an adjacent 23.7; acre commercial site will be offered by Farmer's Bank of Windsor, which holds a \$1.4 million note on the property, Zemanian said.

- Associated Press

Lead in soil prompts demand to be moved

PORTSMOUTH — Several residents of a neighborhood with lead-contaminated soil say the federal government should relocate them to a safer area and pick up the

"Move us out of here. This is a wasteland, said Charlotte Scott, one of about 40 Washington Park residents who aftended a meeting Thursday with U:S: Environmental Protection Agency officials.

EPA officials came to discuss cleanup efforts for an area contaminated by the Abex Corp., a brass and bronze foundry that operated there from 1928 to 1978. They did not address the relocation de-mands. Associated Pross

新月期的100mm 100mm Slaying cause error cited by newspaper

RICHMOND A Richmond police officer who shot and killed a motorist wrongly believed the man may have been driving a stolen car, a newspaper reported in a copyright story Friday. ٠٠ أي

The Richmond Times-Dispatch said incorrect information was given to the officer because another officer called in the wrong tab; locals could buy ticket books license plate number to be checked that reduced each levy to 8 cents. before the two approached the car.

Kitt on June 15.

SUPERFUND

Living everyday with the Peaks, V interest grew and he decided to research a book about the mountains.

'I wanted to know all about what v there."

I-95 tolls dr out of busir

By GREG SCHNEIDER

RICHMOND — Drivers using Interstate 95 around the state's capital are forking over quarters for the last time.

After 34 years of fumbling in ashtrays for spare change, the state has decided to cease tapping tourists to pay for the city's roads.

If you've gone through Richmond toward Florida, or to Virginia Beach on I-64, you've paid at least some of these tolls. Fifty cents downtown, another 50 cents south of the city, yet another half-buck in Colonial Heights.

" Since opening in 1958, the tall booths (and some on exit ramps) have collected about \$550 million, according to the state Transportstion Department. That money paid for the original Richmond-Petersburg Turnpike, then to widen it into an interstate in the '70s, and since the mid-1980s for five highway projects around Richmond and Petersburg.

Outsiders footed most of the

But competition is driving the David I. Steward, 27, died after tolls out of business. Thursday, the being shot by Officer Christopher final leg of the I-295 bypass of Rich-.... mond opened to traffic, and that -Asses and Press soute is fire.

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FRIDAY JUNE 26, 1992

The Virginian-Vilot

Serving southeastern Virginia and northeastern North Carolina

:. 127th Year 1992, No. 156

Residents want to relocate out of contaminated area

By C.J. Clemmons Staff writer

PORTSMOUTH — Several angry residents of a neighborhood threatened by lead-contaminated soil de-manded Thursday night that the foderal government relocate them

safe area and pay for all

lotte Scott, one of about 40 Washington Park residents attending a community meeting with U.S. Environmental Protection Agency: representatives.

EPA officials came to discuss cleanup efforts for an area on Green and 7th streets contaminated by the Abex Corp., a brass and bronze foundry that operated there from 1928 to 1978. But residents wanted more.

"You can't clean that stuff up," Scott said. "Move us out of here.

This is a wasteland."

Representatives from the Virginia Department of Waste Management. the city health department and the Atlanta-based Agency for Toxic Substances and Disease Registry were also on hand to discuss any potential health risks posed by the: contamination.

. It was the fourth meeting between EPA officials and Washington Park residents since early May to discuss removing lead-contaminat-

I soil from the Southside area, ch is home to 457 people. Sail .nd to be contaminated must be gug up, treated and then hauled to a landfill.

Experts have said it is not an emergency situation, and EPA offi-cials say they're working as quickly as possible. The problem, however,

was first discovered 11 years ago.

"Get us out of here and you can just take the whole site," said Ernest Hinton, who owns a duplex apartment building in the area.

Leanne Nurse, community rela-tions representative from the EPA's Philadelphia office, said initial soil removal may begin in the next few we want to be evacuated, relocited ing detailed soil testing, data collection and analysis and planning.

"Our lives have been put on hold," said Naomi Lovett, who lives on Green Street, across from the old Abex Corp. "When people bring their children over, I'm terrified to

let them outside to play.'

The problems were left behind by the Abex foundry, which recycled railroad parts by melting them, a process that released lead particles into the air. The soil in adjacent lots was contaminated with lead deposits from discarded sand casts.

Steady exposure to lead through ingestion, inhalation or skin contact can cause neurological disorders. Long-term effects of lead contamination include speech impediments and learning disorders, kidney fail-ure and brain damage.

The EPA has designated the area a Superfund site, which gives it priority as one of the nation's most hazardous waste dumps. Experts say it will probably take up to four years and \$16 million to rid the area of contamination.

In the meantime, said EPA toxicologist Reggie Harris, hand washing after outside activity can cut down on lead being ingested.

The city health department will begin offering free blood screenings to residents next month.

FAREWELL APPEARANCE





Staff photo by MARTIN SMITH

A reference to his last day as superintendent of Norfolk brought a smile to Gene Carter at a School Board meetin

Schools chief ends years in Norfolk

NORFOLK - After nine years and more than 100 monthly School Board meetings, Superintendent Gene R. Carter bade farewell to his colleagues Thursday.

The board named Deputy Superintendent J. Frank Sellew as

acting superintendent.

Carter officially leaves Wednesday to become executive director of the Association for Supervision and Curriculum Development, a professional education organization in Alexandria.

The board hired Soc Associates, an executive firm based in Charlotte find Carter's replacemen will preside over the sys a new superintendent but no time frame was g

Sockwell & Associa been working on search er major cities as well.

Two resigning beand also attended their final Ray H. Hieton and Bruce.

Get the lead out, EPA says

Water warnings going out to 500,000 homes in Philly

by Ramona Smith

Daily News Staff Writer

A half-million Philadelphia homeowners will receive a warning about possible lead contamination in their drinking water sions with the next water bill.

Recent tests have found that too many city homes have too much lead coming out the taps.

The Water Department still is compiling a full report on the Needs, required by year-old Environmental Protection Agency regulations.

But already the handwriting is clearly on the wall. Plenty of homes are turning up with more than 15 parts per billion of lead in the water - the new EPA "action level."

II more than 10 percent of the taps tested exceed this level for the toxic metallicities regulations say a water utility from alert consumers and investigate steps to prevent plumbing corrosion.

Lead contamination can cause serious health problems, including learning difficulties in children. Although it's not common for lead in drinking water to cause lead poisoning by itself, it can greatly raise the risk - especially for babies drinking formula mixed with water.

"We have icompletely tested about 140 homes," said Water Department consumer affairs director Joan Becker, "and out of the 140, we have the first test round — 28 homes above the action level."

That's twice the 10 percent needed to trigger the required program to help city homeowners deal with possible lead in their iwater. Similar tests are required of other large water utilities nationwide.

The problem in Philadelphia isn't with the city water, Becker

Here are some steps you can take to help get the lead out of drinking water in your home. ■ Let the cold water run before drinking from any tap that hasn't been used for six or more hours. Run water until it's cold - up to 3 minutes. This flushes out water that may have been in contact with lead-based plumbing materials. (To avoid waste: Use this water for dishes or laundry. Keep bottle of cold drinking water in the fridge.) M Never use hot tap water for making baby formula or for cooking. It can dissolve lead in the plumbing system more quickly than cold water does.

Have your water tested if you think your bome may have lead pipes or solder. Lead plumbing materials are common in old homes (built before 1930) and

new homes (where mineral deposits haven't built up to stem leaching from lead-based solder or connections).

To find out what plumbing materials you have, you can hire a licenski plumber of 46cate the plumber who installed the line: The Department of Licenses and inspections plumb ing unit (686-2449) can help you check building permit records for contractors who worked at your property.

Testing can cost about \$20 to \$100. The Water Department is mailing brochures with water bills that name some state-upproved laboratories. The department can answer questions about lead in water at 592-6306. A booklet, "Lead-Ifee Kids, Lead-free Homes," can be requested at the number.

their connections to water mains are the main source of lead Philadelphia and many other communities. Corrosion allows lead to wear away from pipes or solder joining pipes.

Under the new rules, repair or replacement of home plumbing will still be the homeowner's responsibility, although in some cases the city may have to the cost of replacing service into

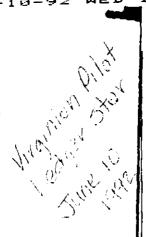
The homes tested dutibly the volunteer homeowners were the "highest risk" houses, Fibelier said. Some have old lead cases or service lines, and the others were built from 1983-1986, when lead solder was still used to join piges inside the house.

Lead in water accounts to an estimated one-fifth of urban jund contamination, experts say, the biggest source is lead paint in other is dust tainted by studies

Lead solder has been banned nationwide since 1986. Pehneylvania has barred all lead materials in residential plumbing since hat year, including repairs and construction.

said. The water sent out from the treatment plants, she said, has had no more than I part per billion of lead at any time during the past year.

Home plumbing systems and



Portsmouth neighborhood demands cleanup of lead

By Alec Klein

Staff writer

PORTSMOUTH — Representatives of the Washington Park area on Tuesday demanded immediate action from authorities to clean up lead contamination in the community.

Rafiq Zaidi, president of the Black Concerned Citizens, a local advocacy group, pleaded his case before the City Council. The problem has been drawn out for 11 years without being fully addressed by city, state and federal authorities, he said.

As a result, he said, the health of children and others who live in the Washington Park public housing complex and the surrounding area in the Southside section of downtown has been put at risk.

"It's very serious," Zaidi said.
"It's an imminent danger."

Zaidi and his partner, Charlotte A. Scott, chairwoman of the Washington Park Youth Council, said they have appealed to the state Department of Waste Management and the U.S. Environmental Protection Agency but have received no response. The two agencies are leading the cleanup of lead contamination caused by the Abex Corp., which operated a brass and bronze factory in the area until 1978.

Zaidi and Scott also held the city

accountable. But they said they were awaiting the EPA's overdue promise to order Abex to conduct a temporary cleanup of the Effingham Playground and parts of Washington Park this month.

"Children are still playing there," Scott said.

Scott and Zaidi said they have been in touch with the American Civil Liberties Union and are in the process of forming a class-action suit of Washington Park residents to seek reparations for those who may have suffered debilitating neurological disorders.

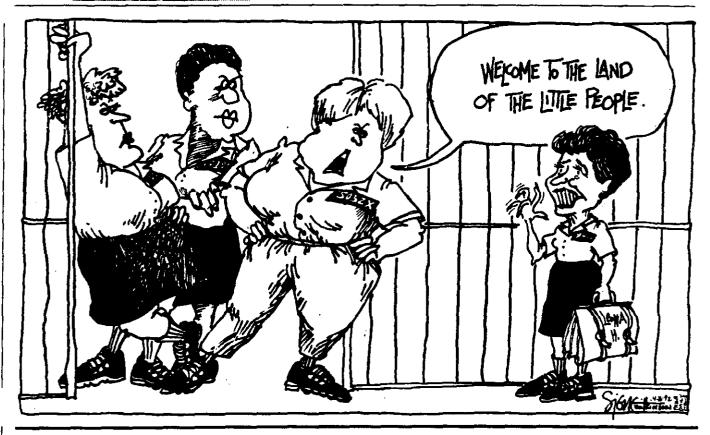
Although blood tests of residents have not shown a clear link between the contamination and any physical side effects, Scott contends the lead has caused problems.

As a symbol of protest until action is taken. Zaidi said he would begin distributing 500 hazardous waste protective jump suits, like the kind he wore in his speech before the City Council Tuesday night.

A tentative meeting of the EPA. Department of Waste Management, city officials and Zaidi's group has been scheduled for June 18, said Carol E Pratt, the city's public information officer.

Pratt also said the public health department is considering conducting a blood screening — the third since 1986 — in the neighborhood.

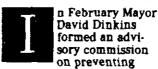




JOHN F. ROSEN

Lead poisoning cure: Federal funds

From the New York Times



childhood lead poisoning.
The commission is to review current anti-lead efforts and propose a citywide plan next year to eradicate the threat. But the city cannot do it alone; federal help is necessary.

Dr. Louis Sullivan, the Secretary of Health and Human Services, calls lead poisoning the primary environmental health threat to all American children.

Research shows that exposure to low levels of lead

n impair basic intellectual ills — reading, writing, math, language, abstract thinking. Lead-based paint remains the major source of lead poisoning.

Although the Lead-Based Paint Peisoning Prevention Act of 1971 proclaimed that lead-based paint is a public danger, 3 million tons of it remain in more than 40 million American homes.

More than 10 million children under the age of 7 live in housing built before 1959, threatened by the walls that should protect them.

Lead poisoning is the most common preventable pediatric illness in the United States. Yet the administration has supported only modest budget increases over the next fiscal year for screening children for the poison and nothing for prevention.

Congress tripled the

budget for screening programs to around \$50 million, but this is still insufficient. When Sullivan recommended allocating \$974 million for a Centers for Disease Control plan to eliminate pre-1959 lead-based paint, the White House refused to support him.

Taxpayers need not spend billions on laboratory research seeking a magic bullet. We need only take some basic steps that the administration is unwilling to take.

First, increase public awareness through local and national workshops for healthcare workers, educators and tenant associations.

Second, screen more children through intensive campaigns at a habs, health fairs and community centers. Most importantly, we must carry out a program to remove lead from contaminated homes. A nationwide effort would require federal funds and organization. The cleanup of homes of children who already have lead poisoning must be a priority.

We can't wait for the president. We must press Congress to finance the Centers' recommendations and local initiatives.

Children affected by lead are robbed of their full potential forever.

How much human potential can this society afford to lose?

John F. Rosen is professor of pediatrics at the Albert Einstein College of Medicine.

Hearing Is Held on Lead-Poison Data

By PHILIP J. HILTS Special to The New York Times

PITTSBURGH, April 14 - In a rare bublic hearing on charges of scientific misconduct, witnesses today strongly defended a scientist whose groundbreaking research concluded that even low doses of lead in children could reduce intelligence scores.

At a hearing on research by the scientist, Dr. Herbert Needleman of the University of Pittsburgh, witnesses provided data showing that the conclusion of a long-disputed paper he wrote In 1979 was correct and has been repeated by numerous other researchers.

The paper was one of the first to confirm what policy-makers had feared: that removing the lead from Rasoline and the air might not be enough to avoid damage to children's health. While the Government's policy bn lead no longer depends on Dr. Needleman's work, a successful attack on his findings might well affect the political climate as the Bush Administration tries to set new limits on lead in drinkthe water and the air, as well as levels poisoned by lead.

On Monday, after the first day of estimony before a University of Pitts- Ernhart, a psychologist at Case West-Burgh panel investigating possible misconduct by Dr. Needleman, even his

A scientist's data are at the center of misconduct charges.

adversaries. (we scientists whose work conflicts with that of Dr. Needleman, said they were impressed by the work presented by his witnesses. One of his adversaries, Dr. Sandra Scarr, a psychologist of the University of Virginia who raised suspicions that Dr. Needleman may have cheated in carrying out his study, said that a complete reagalysis by Dr. Joel Schwartz, a senior scientist at the Environmental Protection Agency, was "impressive and certainly the data aremuch less questionable when presented that way.

The hearing Monday and today was held at the University of Pittsburgh **At which children** must be considered before a panel looking into questions raised about Dr. Needleman's research by Dr. Scarr and by Dr. Claire ern Reserve University.

The two scientists raised the ques-

tions after reviewing Dr. Needleman's original data during a court case, in which they testified on behalf of a leadsmelting company and Dr. Needleman testified on behalf of the Federal Government, which was trying to force a clean-up of lead at the company's plant

The case has become highly politirized because the scientists have been recruited and have testified extensively on either side of the lead industry's effort to limit damages from suits brought against them because of possible harm to children from their opera-

Errors Are Acknowledged

At the hearing, Dr. Needleman acknowledged today that he had made errors in the 1979 paper, but he said they did not affect the final outcome. James Lieber, a lawyer for Dr. Needleman, said he and Dr. Needleman have feared that the misconduct investigation "would take a research dehate and turn it into a blood sport."

But Dr. Scarr and Dr. Ernhart said they felt ethically bound to raise the issues after they saw what they regarded as discrepancies in Dr. Needleman's original data. They were careful not to charge misconduct themselves, but



Witnesses have defended Dr. Herbert Needleman, center, a University of Pittsburgh scientist charged with misconduct on research that concluded that

low doses of lead in children could out an pence scores. Wall, box of the box of the second Discours Arthur Dentary Levy v. 8.1.

to be investigated

still had questions about Dr. Needle most severe being dismissal. man's methods, but that whether misconduct occurred would be left to the hearing be open, and he took full advansaid they had suspicions which needed panel to decide. If the panel concludes tage of the opportunity to sharply ques-

The two left the hearings saying they | recommend | various | penalties, | the | es restricted on Dr. Needleman's behalf,

Dr. Needleman requested that the

I that there was misconduct at could be on his respects 5 half core in a time s while Dr. Einhart and Dr. Scarr brought no witnesses.

The battle began as a standard conflict between scientists, with each publishing conflicting conclusions about whether small amounts of lead could damage children's ability to think, Dr. Needleman did one of the first studies to show that even low levels of lead could lower I.O.

Dr. Ernhart had concluded that no effects had been seen, and that sloppy science had caused Dr. Needleman and others to find the effect.

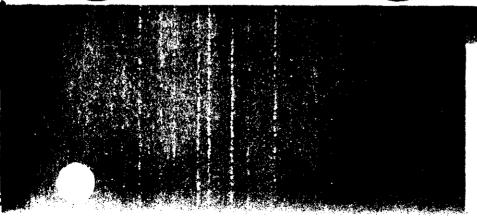
But the conflict rose to the level of archetypal confrontation over the uses of science because Dr. Ernhart has been supported in her work by the lead industry, which has fought the conclusion that lead is harmful, while Dr. Needleman became an inspiration of the anti-lead legions and testified regularly on behalf of plaintiffs who said they had been harmed by lead.

A 1979 Paper Was Crucial

The conflict began with a paper published in 1979 in The New England Journal of Medicine by Dr. Needleman, then at the Harvard Medical School, showing that even low levels of exposure to lead in young children can slow mental development and lower 1.0.

The paper was published when a major question was whether lead could poison a child even at levels that could ordinarily be found in older homes because of th viding of lead-based paint. The measured in children's blo difficult to assess because the uated week to week, depending on exposures. But how much

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ists raised the ques-

re be investigated.

The two left the hearings saying they still had questions about Dr. Needleman's methods, but that whether misconduct occurred would be left to the

recommend various penalties, the most severe being dismissal.

Dr. Needleman requested that the conduct occurred would be left to the hearing be open, and he took full advan-panel to decide. If the panel concludes tage of the opportunity to sharply ques-

that there was misconduct, it could tion his accusers. A half-dozen witnesses testified on Dr. Needleman's behalf, while Dr. Ernhart and Dr. Scarr brought no witnesses.

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The paper was published when major question was whether lead could poison a child even at levels that could poison a critic over at reversiture round ordinarily be found in older homes because of the shedding of lead-tused paint. The levels measured in buildren's blood were difficult to assess because they fluctuated week to a mix depending on exposures. But how much cumulative damage might be done?

Dr. Needleman found a clever approach to the question when he went to first- and second-grade classes in Boston, and passed out small rewards for the children to bring in their baby terms as they fell out. Lead builds up steadily in reeth.

Measuring the amount of lend slices of each tooth, and then comparing the children with the lowest and highest levels of lead, he found had those with the most exposure had lower LQ, scores by an average of 3 points.

Findings Are Rebutted

But two years after the study + o published, Dr. Ernhart published in article in the journal Pediatrics cizing Dr. Needleman's methods own work on exposure to lead the

the opposite conclusion.
In setting its policy on how lead should be permitted, the Endmental Protection Agency was: into the dispute in 1983. A review of work led to criticism of the method both researchers. But Dr North fought back, and after submitting analyses of his data, the E.P.A. with his findings.

Dr. Ernhart and Dr. Scarr

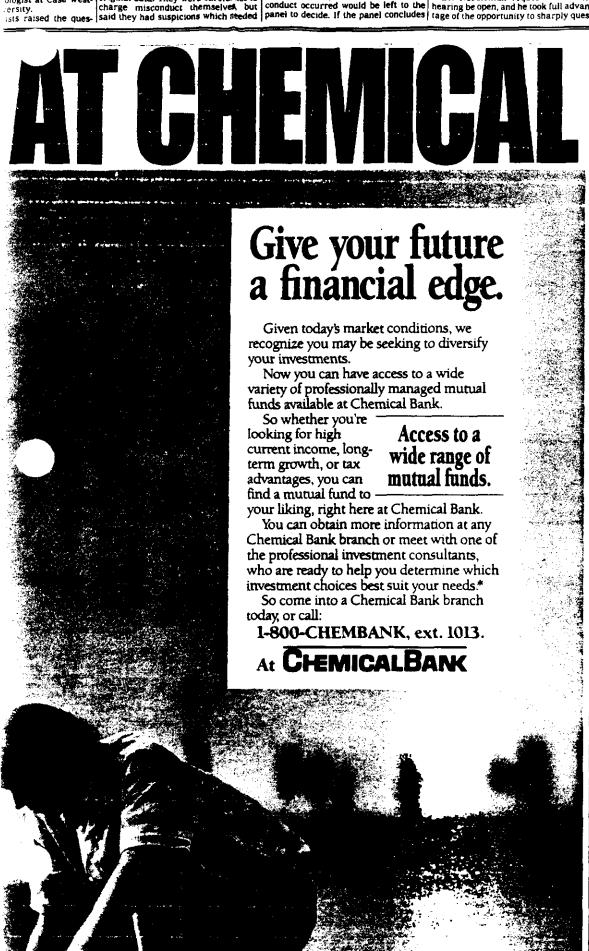
issues: that Dr. Needleman take into account the age of the and that some of the more children considered for the 😪 😂 excluded from the final paper 160 children were included in

Even though I.Q. tests are . to be adjusted for age, it is that particular groups of the 200 change with age even more pected. In their preliminary ... a data. Dr. Ernhart and Dr. ... that if age were taken into 3 results of the study would be there would be no direct link. lead poisoning and lower I 🗘

Shy Some Were Excluded

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In his original study, Dr :--had excluded children from :-they had a history of lead ; if they had seizures or head. He also divided the childre groups - low, middle and lead according to what



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Measuring the amount of lead in slices of each tooth, and then comparing the children with the lowest and highest levels of lead, he found that those with the most exposure had lower I.Q. scores by an average of 3 or 4 points.

Findings Are Rebutted

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In setting its policy on how much lead should be permitted, the Environmental Protection Agency was drawn into the dispute in 1983. A review of the work led to criticism of the methods of both researchers. But Dr. Needleman fought back, and after submitting new analyses of his data, the E.P.A. agreed with his findings.

Dr. Ernhart and Dr. Scarr raised two issues: that Dr. Needleman did not take into account the age of each child and that some of the more than 500 children considered for the study were excluded from the final paper. About 160 children were included in the final

paper.

Even though I.Q. tests are supposed to be adjusted for age, it is often true that particular groups of children may change with age even more than expected. In their preliminary look at the data, Dr. Ernhart and Dr. Scarr said that if age were taken into account, the results of the study would be reversed: there would be no direct link between lead poisoning and lower I.Q.

Shy Some Were Excluded

But Dr. Schwartz of the E.P.A. testi-But Dr. Schwartz of the E.P.A. testi-fied that his own analysis of the data, including a new figure correcting for age, still showed that lead causes some loss of I.Q., roughly the amount report-ed by Or. Needleman. In his original study, Dr. Needleman

had excluded children from the study if they had a history of lead poisoning, or if they had seizures or head injuries. He also divided the children into three

He also divided the children into three groups — low, middle and high doses of lead according to what their dental lead levels were. He then compared the lowest and highest groups to see if there was an i.Q. difference.

In testimony today, he admitted that there were a number of errors in the 1979 paper in the way children were placed into these groups, but said the errors would not affect the final outcome. He also acknowledged that the paper misstated other points about paper misstated other points about how he selected the children.

But Dr. Schwartz's analysis showed that if all the children excluded by Dr. Needleman were put back into the study, it would make no difference to the conclusion statistically. It would-still show that lead poisoning causes a loss of I.Q.

Dr. Ernhart and Dr. Scarr did not dispute Dr. Schwartz's testimony, but said that even if the results were cor-rect, it was not necessarily true that Dr. Needleman did not cheat, only that he did not cheat effectively.

They also said that Dr. Needleman's work and the work of others who have similar results all show that the effect of lead poisoning at low doses is small — that is, a loss of only a few 1.Q. ~''4RLESTON, WV / 55,023

THE STAY 1992

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EPA to target lead, poor communities

By John H. Cushman

O NEW YORK TIMES SERVICE

WASHINGTON — An Environmental Protection Agency scientist in Chicago is putting the final touches on a computer program that can identify neighborhoods where childhood exposure to lead is likely to be rampant.

Corrective measures would be concentrated there — most likely focusing the benefits on black children, who are known to suffer disproportionately from lead poisoning.

alifornia, the federal alimpled drinking water sules at migrant labor camps last year and found 191 violations in water systems serving 8,500 farm workers in 20 counties.

Now the agency is working on enforcement actions, hoping to clean up the water without closing the camps and displacing the predominantly Hispanic workers.

And in the New York metropolitan region, the agency is merging census data and lists of hazardous waste sites to determine whether wealthier communities are getting preferential treatment under the federal Superfund program to clean up abandoned chemical wastedumps.

The research projects represent a new emphasis at!tie agency on "environmental equity," the catchwords used in recent years by grass-roots organizations lobbying for more ag-

gressive steps to protect the environment where poor people and minority groups live and work.

Although environmentalists have long cited anecdotal evidence and some statistics to argue that pollution hits hardest those who are also disadvantaged by reason of race or income, the argument has never had a firm scientific foundation.

The best evidence of the correlation published so far was a 1987 report by the United Church of Christ's commission for racial justice, which showed that across the nation hazardous waste sites tended to be placed in poor and minority communities.

Now a study group of the Environmental Protection Agency is lending official support to the movement for environmental equity.

"How many times does a tree have to fall before you admit that you heard it?" asked Robert Wolcott, the agency official who has been leading the committee, which was formed in 1990 at the urging of social scientists and civil rights leaders.

Wolcott's group has drafted a report that calls for the agency to increase the priority it gives to protecting the disadvantaged, both by analyzing the issue more intensively and by targeting environmental regulations and financial grants to help high-risk groups in minority and low-income communities.

After The Washington Post

recently published a story about the draft report, which is about to be issued in final form, agency officials made public a copy and discussed it freely.

"A key implication of the findings in this report is that EPA does not presently give enough explicit priority to issues of environmental equity," the draft report said.

But the report also noted that data on race, income, health and environment were generally so poor that they proved little conclusively.

"Although there are clear differences between ethic groups for disease and death rates, there are virtually no data to document the environmental contribution to these differences," the report concluded. "Furthermore, for diseases that are known to be environmentally induced, there are no data disaggregated by race and socioeconomic group." (The main exception, it said, is in the plentiful data on lead poisoning among black children.)

On the other hand, there are data showing "rough differences" in the levels of exposure to many kinds of pollution among various social groups.

"Exposure to pollution is not the same as health effects, but this finding is nevertheless a clear cause for concern," the report said.

George Colling, a Sierra Club activist who maintains extensive ties with grass-roots organizations in inner cities, on Indian reservations and in impoverished rural areas, said that "a lot of people have been knocking on the EPA's door for a long time" making this point.

He called the new report a sign that those critics were being heard. But he cautioned that the Bush administration's general reluctance to toughen environmental regulations would continue to work against minorities and the poor.

"There is no new data needed," said Colling, "just a political will and commitment in the face of intensive lobbying by the companies that are making money."

But officials of the environmental agency see the issue differently. They argue that the correct approach is to write narrower regulations to protect selected groups from the particular risks that they face, rather than writing sweeping regulations on the assumption that all people are affected equally by each type of pollution.

For example, in the Pacific Northwest the agency is surveying four Indian tribes about their fish consumption habits in an attempt to evaluate possible increased risks of exposure to industrial contaminants that concentrate in the fatty tissues of certain fish species.

By carefully assessing the demographics of fish consumption, the agency would be able to control pollution where it is most likely to do harm — or at least to warn local people of the dietary risks they face.

Story by Chris Ivusic



he Directorate of Engineering and Housing is ready to begin a lead-abatement program, starting with a public education phase to inform the community.

Levels of lead (and copper) in drinking water and lead in paint will be tested in family housing, child care centers and other buildings on the installation, says Paul Robert, chief of the DEH Environmental Management Office.

The public education phase of DEH's "lead prevention/protection program," Robert says, will kick into high gear in late January or early February.

"The idea here is, we want the community to be involved," the environmental chief says. "The big thing with lead, and asbestos, and a lot of the (environmental) issues, is getting the appropriate information out. People don't like to feel that there's something going on and they're not being told

Ingesting lead from paint or water is harmful. It is tasteless and invisible in water and paint, but its presence in the oody can be detected through blood analysis.

'There is no established safe level of lead in the human body. No exposure to lead can be regarded as free from potential harm," states Lead Paint Hazard Fact Sheet No. 1 from the Division of Lead Poisoning Prevention, Maryland Department of the Environment. It is known that lead poisoning affects children under 6 more severely, because of their developing brains and organs. Lead accumulates in the body after exposure, and poisoning results after repeated exposures over a period of time.

Robert points out that lead-based paint was used extensively up until the 1950s. To attack the problem, DEH will:

- · Do lead assessment surveys to prioritize housing areas that may have lead paint problems.
- · Based on those priorities, do surveys of each and every set of quarters.
- Handle "appropriately" those buildings testing positive for lead paint, regarding maintenance and demolition.

In the lead assessment survey, DEH will take into consideration the age and condition of the home, amount of paint, flaking or peeling paint and documented cases of lead poisoning. Points are given to these different factors, using a formula. The formula yields a total score for a building.

Based on that score, DEH will determine its priorities. In the next year or two DEH will have completed lead surveys of all family housing, says Robert.

'We'll know where or not we have paint that contains lead," he says.

SOUNDOFF! January 9, 1992 Page 10

"The Army is going to really wrestle with this, the rest of the world is going to really wrestle with lead paint, because so much of it was used," the chief declares.

"The best thing we can do now is educate. There are relatively simple steps you can take to prevent yourself or your children from becoming lead

poisoned. Again, the emphasis is on protecting children.

"Good, common sense things. If there is lead paint, don't chew on the paint or woodwork." Once a family is aware of a problem, renovations can be done in accordance with lead abatement standards, he adds.

'Lead paint on the wall doesn't pose a significant hazard if you know it's there and you treat it appropriately. If it's peeling and chipping, and you're eating it. and (lead) dust is all over the place, that's a problem.'

Fort Meade's lead paint program, he says, is tailored to meet the requirements of the Army, Environmental Protection Agency and the State of Maryland.

"The leader in lead paint abatement has been the Department of Housing and Urban Development (HUD). One of the

few states that has its own lead program is the State of Maryland, by the way," the chief says. HUD has led the way in lead paint abatement because of its heavy involvement in low income housing and renovation of housing, he explains.

HUD guidelines state that a positive

result of lead detection in paint is a reading of 1.0 milligrams per square centimeter. Maryland's guidelines are even more stringent — 0.7 milligrams per square centimeter. DEH will follow the Maryland standards, Robert says.

'The whole lead issue is the same as the asbestos issue, it touches you at home, it touches your children. It's volatile, it's sensitive, people get concerned," says the chief.

Lead in water and paint, like asbestos, is not an "Army problem," Robert points out. Instead, it is "something the whole country will have to work through, like it did with the PCBs. (polychlorinated biphenyls)," PCBs. involving explosions of electrical transformers, were a major concern, he says, because they are cancer-causing.

Testing, analyses and surveys will be

inexpensive compared to abatement. The expensive part of the lead prevention program, says Robert, will be the abatement.

"The country has attacked the lead-inthe-air problem (through unleaded gasoline); we're getting a handle on that one. We still have the water problem, we still have the paint problem," he says.

"Our mission at Fort Meade is basically to allow the installation to operate and function while at the same time protecting and enhancing the environment.

Drinking water in family housing, in two barracks buildings, in eight Child Development Services buildings and in some other post buildings will be tested. according to Robert.

"Basically, we haven't worked out all the details of (the program) yet, but it will probably be initially 100 samples. for statistical representation of all of the family housing units and (some) post buildings," he says.

The combined staffs of the Environmental Management Office and Preventive Medicine Kimbrouch Arms

Community Hospital will take samples.

However, housing occupants most likely will be involved in taking the samples, the environmental chief said, to cause the least disruption to households.

"We felt that getting group participation will help foster that data exchange, rather than us (DEH) just showing up at your doorstep at six in the morning with a letter, saying, 'OK, I've gotta do the sample. I took the sample. See you later."

To be valid samples, the water has to have sat in the lines in the house for six to eight hours, to allow time for any lead in the pipes to leach out.

Robert points out that the purpose of the testing is to find any lead inside the plumbing system of a house; that is, between the water mains on the street and the water tap in the kitchen or bathroom. The water that goes into the water mains is already tested for lead at the Water Treatment Plant.

"Typically, (the occupants) do what's called a first draw sample — the very first water that comes out of your tap (in the morning) — from the kitchen or bathroom. Sample off the first portion, and it's all specified in the sampling procedures," he says.

Occupants will be given sampling kits and instructions, possibly in classes EH will run.

The Defense Industrial Supply Center, Defense Logistics Agency, Philadelphia, Pa., maintains a "stable" of testing laboratories that can be used to analyze Fort Meade lead samples, Robert explains.

As Fort Meade and the laboratory work out schedules of delivery and collection of sample bottles, and the requirements of testing, DEH will also be looking at locations where the samples will be taken. From each

family housing area, volunteers will be sought.

"I anticipate we will be using the mayors' system to brief this information to get volunteers from each area," Robert said. The matter was to be discussed at the DEH meeting with the mayors this month.

"We're hoping we'll get enough volunteers," he says, following the public education phase.

Although required to get only 60 rater samples, DEH will take 100 nples in the 13 family housing and our other areas.

"The priority on lead abatement is basically child development centers, schools, residential areas, and then all other administrative-type areas." says Robert. At Fort Meade, the schools fall under the responsibility of Anne Arundel County.

Three buildings built since 1982. Youth Services, Defense Courier Service headquarters and the Waste Water Treatment Plant, will be tested for lead in water, to meet EPA criteria.

The testing is mandated by the Safe Drinking Water Act passed by Congress, last amended in 1987. Congress empowered EPA to carry out the provisions of the act. EPA promulgated its final rule on safe drinking water in July 1990, Robert says. The Maryland Department of the Environment has an approved safe drinking water program,

in accordance with EPA rules, he says. Fort Meade must meet or exceed the state regulations on drinking water and must report data to the state, such as a municipality would do.

Fort Meade is being more strict than the state by taking 100 samples, instead of 60, believing this will give the installation a "better picture" of lead content in water, says Robert.

Looking at diagrams of family housing, the chief says, DEH believes plumbing in homes should either be copper or galvanized steel. The problem with copper pipe is that it could be joined together with lead solder.

"We have looked through all of the records at Fort Meade and know of no lead piping," he says. A joint or connector may be the problem, but not the pipes themselves.

"I'd be surprised if we get results back that show extensive lead leaching problems," he concluded.

"If levels come back low, below what EPA and the state say, you continue to monitor to make sure they don't go over those levels," says Sara Gracey, engineering technician at the Environmental Management Office.
"There's ongoing monitoring, whether or not results came back high or not."

Levels of copper in water, like other minerals or chemicals, even fluoride, are regulated by EPA. Robert explains; therefore, copper will be tested.

Gracey has been corresponding with the state about sampling, and feels everything is in order to start testing.

DEH bought an X-ray fluorescent analyzer in December that it will use to test for lead in paint.

The analyzer is first calibrated at a 0.05 level against a block of lead in a piece of wood, says Gracey. The analyzer is pressed against the wall or surface; the handle is pushed in, and a digital reading of lead content is given. Samples of paint and wipes for lead dust can also be taken and sent away for analysis, if the reading is high.

A minimum of three readings should be taken at each location. HUD guidelines suggest a clockwise pattern of testing of walls, window sills, window sashes, floors, closets, doors, porches, porch posts. The results will be analyzed and documented. Where there is a lot of friction, such as a window being opened and closed, the possibility of lead being disturbed is raised, Gracey explains.

Terence Puls, environmental engineer working with Gracey on lead abatement, says that the issue of old buildings to be demolished that may contain lead paint is also being addressed.

DEH took 10 samples at World War II-type buildings to be demolished. They are awaiting paint sample results on the exteriors.

"We also will take a piece of wood from the outside and see if it's suitable

for landfill," says Puls. If the wood is heavily contaminated, it would have to be disposed of as hazardous waste.

Asked about his outlook on lead abatement, the engineer says, "There's a lot to do. It's fairly recent that the lead issue is becoming a big, significant thing with the public. It's one of those things where it's been around for awhile, and people are finally coming out and addressing it.

"With the age of our installation, it's probably got a lot of things to look at. One thing, it's going to be is time-consuming. It's too early to say if there are going to be problems."

"I think it's working," says Gracey of the lead program. "We're just now really getting started. We've done all the paperwork up to now. Now we're getting ready to take the samples.

"I'm excited about it, because I've spent all these months doing the work and now samples are actually going to be taken and results will be coming back.

"I'm not foreseeing a problem. I think the water samples are going to come back really good. I think the program's really going to work.

"What few houses I've been inside, all the interiors we have done (for lead paint), they've all come back below any of the levels, and that's definitely a relief.

"The way I look at it, the children are the main concern."

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JUN 14 1986

Children near contaminated site found to have normal lead levels

By COLEEN HAND Staff writer

PORTSMOUTH — Blood samples taken Friday from 22 youngsters who attend a day-care center near a lead-contaminated site showed that none of the children had elevated lead levels, health officials said Friday.

The 2-, 3- and 4-year-olds at Portsmouth Day Care Center were the first to be tested for lead contamination as part of an extensive screening by the Portsmouth Health Department.

Victor W. Goodman, the department administrator, said none of the blood samples taken from the children showed elevated lead levels.

The screening is the result of studies by the U.S. Environmental Protection Against that found high concentrations of lead in an abandoned 1-acre lot in Southside. The site, which federal and local officials have called a significant threat to public health, abuts the 168-unit Washington Park publichousing project.

Beginning Monday, Health Department employees will go door-todoor to administer blood tests to children 12 and under living within three-quarters of a mile from the lead-laden site. Youngsters in Washington Park will be tested first.

The screening, originally targeted

at Washington Park children, has been broadened to include children living within the area bounded roughly by Portsmouth Boulevard, Elm Avenue, Interstate 264 and the Norfolk Naval Shipyard.

Dr. R. Dale Hunsaker, director of the Health Department, said the testing area was extended because lead can become airborne and

"It is not just going to stay in the Washington Park area," Hunsaker said. "It can travel any place, wherever the air goes."

Health officials are particularly concerned about the risk to children, who are most vulnerable to lead's toxic effects. Lead, when ingested or breathed, can cause learning disabilities, nerve damage, kidney damage, anemia and, in the most serious cases, brain damage.

"We don't know whether there is a problem," said Hunsaker, "but we need to know. Our interest is the children because they're the ones that if they have high lead levels, it needs to be brought down before disabilities develop.

The blood samples taken at the day-care center were examined at the Health Department on Friday afternoon. The tests run in the laboratory actually measure the level of zinc protoporphyrin, a component of blood that, when elevated, is an indicator of either a high lead level or anemia. If a high level of zinc

protoporphyrin is found, the blood is sent to the Norfolk Health Department for an exact lead reading.

EPA and local officials are overseeing an emergency cleanup of the lead-laden site off Seventh Street. Abex Corp., which owns the lot. agreed to perform the partial cleanup to prevent further runoff and remove contaminated soil from the surrounding area, including some yards of the housing project.

Abex operated a foundry at the site for about 50 years until 1978.

The site is also being studied for inclusion on the EPA's Superfund list. If the property were included on the list of hazardous-waste sites. the EPA could order a major cleanup either by the property owner or the federal government.

Soil samples taken in 1984 and in April revealed lead concentrations up to 34 times the normal level on the site and 42 times the normal level just outside the site, according

to the EPA.

Hunsaker said his staff recently took new samples within three-quarters of a mile of the site. Of the 24 samples taken, only four contained elevated lead levels, he said.

Two of the sites where above-normal levels of lead were found are off Seventh Street near the Abex lot. The other two are just south of Portsmouth Boulevard between Peach and Chestnut streets and off Race Street near I-264.

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Virginian-Pilot, Norfolk

MAY ... 1986

Washington Park lead tests set

Concentrations found nearby

By COLEEN HAND Staff writer

PORTSMOUTH — Young children in the Washington Park public-housing project will be tested for lead contamination as the result of a preliminary study that found high concentrations of the element in an abandoned let adjoining the complex.

Beginning June 2, employees of the Portsmouth Health Department will go door-to-door in Washington Park to administer blood tests to children under 6, said Sheila Pittman, a spokeswoman for the city.

Although only the younger children will be given home tests, Pittman said any child or adult who is concerned about lead patroning can be tested at the Health Department clinic at 800 Crawford Parkway.

Councilman E.G. "Tip" Corprew said, however, that the door-to-door blood tests should be given to older children as well. He said that they or their parents might not be aware of the dangers of lead to request a blood test.

"Anybody who lives in that neighborhood is basically susceptible," Corprew said, "I think 6 is an awful young age for a cutoff. I think it should be a broader group."

Pittman said only the younger children will be screened door-to-door because local health officials believe they are most susceptible to lead poisoning.

"We're doing this because it is a health concern," Pittman said. She said the department has received numerous calls from parents who are worried that their children have come in contact with the lead-contaminated lot off Seventh Street.

Last week, officials with the U.S. Environmental Protection Agency said the site was being studied to determine if there is sufficient risk for it to be placed on the agency's Superfund list. If the property were included on the list of hazardous waste sites, the EPA could order that it be cleaned up either by the property owner—in this case, Connecticut-based Abex Corp.—or the federal government.

Soil samples taken in 1984 from the oneacre lot revealed lead concentrations up to 34 times the normal level, state and federal officials said. Samples taken from adjacent property also were higher than normal.

The EPA is awaiting the results of tests on a second set of soil samples it took on April 2. Pittman said the Health Department, at the request of the EPA and the Centers for Disease Control in Atlanta, took additional off-site soil samples this week.

The U-shaped lot in Southside is bordered on two sides by the 160-unit Washington Park project. The lot, overgrown

with weeds, is fenced but displays no warning or trespassing signs.

Before the fence was installed a few years ago, children from the housing project used the lot as a playground. Washington Park resident Nancy O. Hunter and her granddaughter, Torshawna, said children still climb the fence or crawl through holes in it.

Corprew said that regardless of what the new soil samples show, the lot should be cleaned up — if necessary, by the city.

"I think that really we, as a city, should want to clean this up," he said.

The lead screening was not ordered by the EPA or state officials, Pittman said, but rather is being arranged by the city. She said the city plans to hire a nurse and two aides to help administer the tests.

"It is going to take us several months to do this door-to-door screening," she said.

Children are most vulnerable to lead poisioning, which can cause learning disabilities, nerve and kidney damage, anemia and, in the most serious cases, brain damage. Lead is harmful which ingested or when lead particles are inhaled.

Until 1978, Abex operated a foundry next to the site for about 50 years. EPA officials said that in addition to lead, "elevated levels" of heavy metals such as copper, zinc and iron were found in the initial soil samples but were not considered a threat.

For more information on the screening and the clinic's hours, call the Portsmouth Health Department at 393-8585.

Legal

NOTIFICATION

IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

CIVIL ACTION

PATRICIA MOURING, etc. and DESIREE REEVES, etc.

Plaintiffs,

v.

ABEX CORPORATION SITE, etc.

Case # 2: 929cv522

et al.,

Defendants.

Re: Motion for Temporary Restraining Order Certificate of Service

Please take notice that:

on 1992 at 9:00 A.M. a hearing is set for the above mentioned cause. Motion for permanent injunction and a copy of the original complaint was served on the defendants.

The preliminary hearing on this matter will take place at the Walter E. Hoffman United States District Courthouse 600 Granby Street Norfolk, Virginia Telephone number [804] 622-8134

AFFIDAVIT

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Commission Exp. 3/2/93

ABEX SUPERFUND SITE UPDATE

The ROD for the Abex Site, OU1, was signed on September 29, 1992. On October 13, 1992, EPA and VDWM met with city officials of Portsmouth, VA to brief them on the ROD. After the meeting with city officials, EPA and VDWM held the first of a series of public availability sessions at the Washington Park Housing Project Community Center. Residents from the housing project, the Effingham residential home owners, the Seventh Street row home owners, and an official representing the Drug Rehabilitation Center talked individually or in small groups with EPA and VDWM representatives about the ROD. In addition, three public availability session were held on October 14 and two were held October 15.

These sessions were extremely successful. Many people who had not spoken in public meetings before or who had not attended previous public meetings talked to us about their concerns. Also, we visited the homes of some elderly residents, who were to ill to come to the sessions, to explain to them the ROD and to answer their questions. Most of the residents said that they understand what we are doing and many of them agree with our decision. Some of the residents thanked us for what we have done so far. However, some of the home owners still want us to buy their property.

We inspected the Abex foundry and the Abex Lot while we were there. One of the walls of the factory is leaning on fences that surround the yards of several Seventh Street row home residents. I requested that the Removal Branch either demolish the factory or to provide some structural support for the wall. In addition, one residents told us that during a recent storm a large quantity of water flowed out of the building into the streets and into the yards of some of the residents at the housing project. I also asked the Removal Branch to divert the storm water coming out of the building.

While we were conducting one of our availability sessions on October 14, we learn that the city housing authority was excavating possibly contaminated soil in the yard outside of Washington Park Housing Project Community Center. The city housing authority had not notified us about what they were planning to do. We had them to stop excavation until the soil is analyzed. I will discuss with ORC the possibility of our sending the City of Portsmouth a letter, stating that before they consider doing any excavation at the Site, they notify us first.

On October 23, I met with the Portsmouth Community Services Board in Portsmouth, VA to explain the ROD and to answer their questions. They are responsible for Drug Rehabilitation Center and other community services. SHI MAECORP DED ENGINEERING

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

IN THE MATTER OF:

Abex Corporation Site

Pneumo Abex Corporation,

Respondent

Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. § 9606(a)

Docket No. III-92-21-DC

1242 2 2/2011 /

ADMINISTRATIVE ORDER FOR REMOVAL RESPONSE ACTIVITIES

Having determined the necessity for implementation of response activities at or relating to the Abex Corporation Site in Portsmouth, Virginia, the United States Environmental Protection Agency ("EPA"), hereby Orders as follows:

I. JURISDICTION AND GENERAL PROVISIONS

1.1 This Order is issued pursuant to the authority vested in the President of the United States by Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA"), 42 U.S.C. § 9606, delegated to the EPA by Executive Order No. 12,580, 52 Fed. Reg. 2923 (January 29, 1987), and further delegated to the Regional Administrators of EPA. This Order pertains to property located around the former Abex Foundry at or within the Abex Corporation Site at the corner of Randolph and Green Streets in Portsmouth, Virginia and lead-contaminated land in close proximity to the Foundry, as depicted in the Site sketch attached hereto. The area adjacent to the Foundry will hereinafter be referred to as "the Abex Corporation Site" or "the Site", and is further described in paragraphs 3.3 and 3.12, below.

- 1.2 The Respondent shall undertake all actions required by, and comply with all requirements of this Order including any modifications hereto ("the Work").
- 1.3 The Work shall be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, as amended ("NCP"), 40 C.F.R. Part 300, and CERCLA.
- 1.4 This Order is issued to the above captioned Respondent ("Respondent").

II. STATEMENT OF PURPOSE

2.1 In issuing this Order, the objective of EPA is to protect the public health and welfare and the environment by ensuring that a proper removal response action, as defined in Section 101(23) of CERCLA, 42 U.S.C. § 9601(23), is conducted to abate, mitigate and/or eliminate an imminent and substantial endangerment to the public health and welfare or the environment because of the release or threat of release of hazardous substances at the Site (as hereinafter described), by removing or taking appropriate measures to otherwise respond to lead-contaminated soil at the Site in order to reduce this threat.

III. FINDINGS OF FACT

- 3.1 Respondent Pneumo Abex Corporation is a corporation organized under the laws of the State of Delaware.
- 3.2 The Abex Corporation owned and operated a brass and bronze Foundry ("Foundry") at the Site from 1928 to 1978. The Foundry recycled used railroad car journal bearings. During production, and as a by-product thereof, some lead was released into the air from the Foundry and a significant amount of lead-containing furnace sands were deposited on land in close proximity to the Foundry.
- 3.3 The Abex Corporation Site is located in Portsmouth, Virginia and includes the Foundry located at Randolph and Green Streets and lead-contaminated land in close proximity to the Foundry as depicted in the Site sketch attached hereto. Land uses in the area include residential, commercial and industrial property, including the Washington Park Housing Project and the Effingham Playground.
- 3.4 The Abex Corporation Site was proposed for listing on the National Priorities List ("NPL"), 40 C.F.R. Part 300, App. B, in June of 1988 and placed on the NPL in August of 1990.

- 3.5 Holland Investment and Manufacturing Company of Portsmouth, Virginia currently owns the Foundry and the land on which it is located.
- 3.6 Respondent Pneumo Abex Corporation owns several parcels of land adjacent to the Foundry, within the Site.
- 3.7 The City of Portsmouth owns and operates the Washington Park Housing Project and owns and operates the Effingham Playground, which are part of the Site.
- 3.8 On or about August 11, 1986 the Abex Corporation entered into a Consent Order with the EPA ("1986 Removal Order") to conduct a removal action to excavate and remove lead-contaminated surficial soils and to further reduce lead exposure by constructing an asphalt pavement on several areas on the Site ("1986 Removal Action"). Areas excavated pursuant to the Removal Action included portions of the Effingham Playground to the west, Washington Park Housing Project to the north and the Seventh Street Row Houses and the vacant lots to the east. The 1986 Removal Action was completed pursuant to the terms of the 1986 Removal Order, on or about February of 1988.
- 3.9 On or about October 10, 1989, the Abex Corporation entered into a Consent Order pursuant to CERCLA with the Commonwealth of Virginia as lead agency to perform a Remedial Investigation and a Feasibility Study ("RI/FS") of the Abex Corporation NPL Site. A draft RI/FS was submitted to the Virginia Department of Waste Management ("VDWM") in October of 1991.
- 3.10 In April and May of 1991 EPA received preliminary sampling data from the RI/FS activities which indicated the presence of elevated levels of lead in soil not addressed during the 1986 removal action.
- 3.11 On or about August 21, 1991 EPA conducted an investigation of the Site to determine the extent of lead contamination in the soil. The results of that study showed levels of lead as high as 7,310 parts per million (ppm) in soil and other areas not addressed by the asphalt cap installed during the 1986 removal action.
- 3.12 Effingham Playground is the only playground for the nearby children. The boundary of the playground is located within 20 feet west of the Foundry and is further depicted on the attached Site sketch (Exhibit A). Based on analytical data included within the draft RI/FS report, there are several areas in the Washington Park Housing Project and the Effingham Playground where lead contamination in the top 6 inches of soil exceeds 500 ppm of lead. Prior cleanup activity pursuant to the 1986 Removal Order had accomplished cleanup of lead contamination in surficial soils that showed levels in excess of 500 ppm. For the area

bounded by Effingham Playground to the north, Lincoln Street to the South, Effingham Street to the west and Green Street to the east, sampling results show that soils containing concentrations of lead above 500 ppm are present in certain residential yards. The majority of these locations have been corroborated by split samples collected by EPA's oversight contractor, CDM Federal Programs Corporation, and analyzed through EPA's Contract Laboratory Program.

- 3.13 On or about December 18, 1991 the EPA Region III Regional Administrator determined that the lead levels detected at or near the surface of soils at the Washington Park Housing Project, the Effingham Playground and in the area bounded by Effingham Playground to the north, Lincoln Street to the South, Effingham Street to the west and Green Street to the east, represent an imminent and substantial endangerment to human health and the environment.
- 3.14 Lead is poisonous to humans by ingestion and inhalation. Human systemic effects by ingestion and inhalation are loss of appetite, anemia, malaise, insomnia, headache, irritability, muscle and joint pains, tremors hallucinations, distorted perceptions, muscle weakness and gastritis. It also affects the human blood system and the kidneys. Chronic exposure can lead to irreversible vascular sclerosis, tubular cell atrophy, interstitial fibrosis, and glomerular sclerosis. Severe toxicity can cause sterility, abortion, and neonatal mortality and morbidity. In addition, lead exposure in children has been found to cause significant learning deficiencies and impaired neurobehavioral development.
- 3.15 Lead is listed as a hazardous substance at 40 C.F.R. § 302.4.

IV. CONCLUSIONS OF LAW

- 4.1 The Abex Corporation Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- 4.2 The Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- 4.3 "Hazardous substances", as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), have been disposed of at the Abex Corporation Site and are currently present there.
- 4.4 The presence of hazardous substances at the Site and the past, present, and/or potential migration of hazardous substances from the Site constitutes an actual and/or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

- 4.5 (a) Respondent Pneumo Abex Corporation is an "owner or operator of a vessel or a facility" within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).
- (b) Respondent Pneumo Abex Corporation, is a "person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of" within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).
- 4.6 The Respondent is liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

V. DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set forth above, and the Administrative Record supporting this Order, EPA has determined that:

- 5.1 The actual and/or threatened release of hazardous substances to the Washington Park Housing Project, the Effingham Playground and in the area bounded by Effingham Playground to the north, Lincoln Street to the South, Effingham Street to the west and Green Street to the east, may present an imminent and substantial endangerment to the public health or welfare or the environment.
- 5.2 The Work is necessary to protect the public health and welfare and the environment.
- 5.3 Because there is a threat or potential threat to public health or welfare or the environment, a removal action is appropriate to abate, minimize, stabilize, mitigate or eliminate the release or threat of release of hazardous substances at or from the Site.

VI. PARTIES BOUND

- 6.1 This Order shall apply to and be binding upon Respondent and its agents, successors, and assigns. Neither a change in ownership or corporate or partnership status of the Respondent, nor a change in ownership or control of the Site shall in any way alter Respondent's responsibilities under this Order.
- 6.2 No change in ownership of any property covered by this Order shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Order.
- In the event of any change in ownership or control of any portion of the Site owned or controlled by Respondent, Respondent shall notify EPA in writing at least thirty (30) calendar days in

advance of such change and shall provide a copy of this Order to the transferee in interest of the Site prior to any agreement for transfer.

6.4 The Respondent shall provide a copy of this Order to all contractors, subcontractors, supervisory personnel, laboratories and consultants retained by Respondent to conduct any portion of the work to be performed by Respondent pursuant to this Order. Respondent shall require in any and all contracts related to this Site that the work that is the subject of such contract be performed within the time and in the manner set forth in this Order.

VII. NOTICE TO THE STATE

7.1 Notice of issuance of this Order has been given to the Commonwealth of Virginia, pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

VIII. RESPONSE ACTION PLAN DEVELOPMENT AND IMPLEMENTATION

- 8.1 Respondent shall commence and complete performance of the following Work within the time periods specified herein.
- 8.2 Within nine (9) business days of the effective date of this Order, Respondent shall notify EPA in writing of the identity and qualifications of the contractor, subcontractor, supervisory personnel, and other persons who will be primarily responsible for developing the Response Action Plan ("RAP") required by this Respondent shall further notify EPA in writing of the Section. identity and qualifications of all contractors, subcontractors, supervisory personnel and other persons who will conduct all or any portion of the Work no less than eight (8) days prior to commencement of the Work to be performed by such persons. All contractors, subcontractors, supervisory personnel and/or other persons retained to perform Work shall meet the applicable Occupational Safety and Health Administration ("OSHA") requirements as defined in 29 C.F.R. § 1910.120. contractors, subcontractors, supervisory personnel, and other persons who will perform Work; the Respondent's Project Coordinator designated pursuant to Section IX; and any replacements to any such persons are subject to disapproval by EPA at any time. In the event of any such disapproval by EPA, Respondent shall notify EPA within five (5) calendar days of receipt of such EPA disapproval of the person(s) who will replace the one(s) disapproved by EPA. Persons disapproved shall not perform any of the Work for which they were disapproved.

- 8.3 Respondent shall accomplish the following items:
 - For the Effingham Playground, (1) remove to a 6 inch depth below grade, lead-contaminated soils that exceed 500 ppm based on analytical data included in the revised February 1992 Remedial Investigation / Feasibility Study ("RI/FS") report, pre-excavation data from the 1986 CERCLA Removal Action included in the October 1990 Remedial Investigation ("RI") Work Plan (figure 8 and Appendix D) and additional samples which Respondent shall collect from the western half of the Effingham Playground in accordance with procedures described in paragraph 8.3(a)(2), below, to levels protective of human health and welfare and the environment as proposed by the Respondent and as approved by EPA pursuant to paragraph 8.5 and in any event to levels no higher than 500 ppm, and properly dispose of the excavated soil in accordance with procedures described below in paragraph 8.3 (d);
 - (2) Perform additional sampling analyses at the 0-6 inch depth interval at locations representative of 50foot spacing, between locations of samples collected during the RI/FS, to further evaluate the horizontal extent of lead contamination in the top six inches below grade, in the western half of the Effingham Playground. Analyze each sample for the presence of lead and review sample data to determine the presence of isolated areas that exceed 500 ppm ("hot spot"). If the result exceeds 500 ppm the location will be subject to excavation as defined in paragraph 8.3 (a)(3) below during this removal action. Removal actions at the Effingham Playground will be required at areas with lead detected in soils above 500 ppm and included but not limited to locations at Q1-S26 and Q1-S23 and any additional hot spots detected in the soils based on the analytical results of the additional samples;
 - (3) Respondent shall excavate Playground areas containing greater than 500 ppm of lead to a depth of at least six inches below grade, including but not limited to locations Q1-S26 and Q1-S23. Subsequent to excavation, Respondent shall sample each sidewall from its midpoint and analyze for total lead. If lead is greater than 500 ppm, Respondent shall continue excavation five feet in the direction of the sidewall exceeding 500 ppm lead and to a depth of six inches below grade, with specific attention to areas of wear. Respondent shall collect another sample from the sidewall and analyze for lead. If the sample contains greater than 500 ppm lead, Respondent shall conduct further excavation and sampling following the

procedures described in paragraph 8.3(a)(2) above. This Section does not require removal actions in the eastern half of the Effingham Playground where the 1986 Removal Action was conducted and where pre-excavation samples collected on 50-foot space intervals for the 1986 Removal Action indicated levels of lead in the top six inches below grade, to be below 500 ppm;

- For the property known as the Washington Park Housing b. Project (depicted in the attached Site sketch), remove | lead-contaminated soils at levels in excess of 500 ppm as identified by analytical data and including but not limited to locations Q1-S7, Q1-S9, and Q1-S16 referenced in the RI/FS report subject to QA/QC measures, to levels protective of human health and welfare and the environment as proposed by the Respondent and as determined by EPA pursuant to paragraph 8.5 and in any event to levels no higher than 500 ppm; and properly dispose of the excavated soil in accordance with procedures described below in paragraph Respondent shall conduct excavation and 8.3(d). confirmatory sampling as described in paragraph 8.3(a)(3), above, except that the excavation will be performed to a depth of 12 inches;
- c. For the area bounded by Effingham Playground to the north, Lincoln Street to the south, Effingham Street to the west and Green Street to the east, propose methods for the elimination of surface exposure to soil containing lead in excess of 500 ppm for the top 6 inches of exposed (non-paved) soil areas where no cultivation is expected, but the possibility of human contact may exist, and for the elimination of shallow soil containing lead in excess of 500 ppm for the first 12 inches of soil in areas where soil cultivation is possible;
- d. Excavate and remove contaminated soils from hot spots as described in subparagraphs (a), (b) and (c) above, and as approved by EPA, and stockpile the excavated soil on the Foundry lot as depicted on the Site Sketch for classification for proper treatment and/or disposal. Upon completion of soil classification properly treat and/or dispose of contaminated soils. Remove and properly dispose of, or treat water containing lead or other hazardous substances generated as a result of the above activities to levels in accordance with applicable law;
- e. Backfill excavated areas with soil and reseed;

- f. Obtain a Hazardous Waste Generator Identification Number; and
- Provide site specific health and safety measures. q. including preparation and implementation of a plan ("HASP"), for Site activities required by subparagraphs a through e, above, to protect the health and safety of workers, other personnel and the public from the hazardous substances and work-related health and safety hazards during performance of the Work specified herein. The HASP shall, as appropriate, provide for proper decontamination of personnel and equipment, monitoring and control of offsite migration of hazardous substances during the conduct of activities at the Site and protection of public health from exposure to hazardous substances during the conduct of activities at the Site pursuant to this Order. Applicable sections of the HASP shall be at least as stringent as the Occupational Safety and Health Administration and EPA requirements, including, but not limited to, 29 C.F.R. § 1910.120.
- h. Develop an expeditious schedule for implementation of the RAP.
- 8.4 Within seventeen (17) business days of the effective date of this Order, Respondent shall submit to EPA for approval a RAP detailing the response actions to be implemented for the items specified in paragraph 8.3 above. The RAP shall include, among other things, a schedule for expeditious performance of such response actions. The RAP shall be consistent with the NCP and shall be subject to approval by EPA according to the provisions of paragraphs 8.5 and 8.9 below.
- 8.5 EPA will review the RAP and notify the Respondent of EPA's approval or disapproval of the RAP. In the event of disapproval, EPA will specify the deficiencies in writing. The Respondent shall respond to and correct the deficiencies identified by EPA and resubmit the RAP to EPA within five (5) business days of receipt of EPA disapproval or such longer time as may be specified by EPA in its discretion. Approval, disapproval and/or modification by EPA of the subsequent RAP submission shall be according to the provisions of Paragraph 8.9 below. Approval of the RAP shall not limit EPA's authority under the terms of this Order to require Respondent to conduct activities under this Order to accomplish the work outlined in paragraph 8.3 of this Order.
- 8.6 Within five (5) business days of receipt from EPA of written approval to proceed with implementation of the RAP, the Respondent shall begin implementation of such RAP in accordance with the RAP and the schedule therein. In the event EPA

determines that any Work performed is deficient, and EPA requires Respondent to correct or re-perform such Work pursuant to this Order, Respondent shall correct or re-perform such Work in accordance with a schedule provided by EPA.

- Beginning seven (7) calendar days subsequent to the date of receipt of EPA approval of the RAP and every seven (7) calendar days thereafter or longer as may be determined by the EPA Project Coordinator designated pursuant to Section IX, and until EPA advises Respondent that the Work is complete, the Respondent shall provide EPA with a progress report for each preceding 7 day period. The progress reports shall include, at a minimum: 1) a description of the Work completed and the actions that have been taken toward achieving compliance with this Order; 2) a description of all data anticipated and activities scheduled for the next 7 calendar days; 3) a description of any problems encountered or anticipated; 4) any actions taken to prevent or mitigate such problems; 5) a schedule for when such actions will be completed; 6) copies of all analytical data received during the reporting period; and 7) all modifications to the Work, RAP and schedule made in accordance with Section XV to this Order during the reporting period.
- 8.8 Documents, including plans, reports, sampling results and other correspondence to be submitted pursuant to this Order shall be sent by certified or express mail to the EPA Project Coordinator designated pursuant to Section IX.
- All reports, plans, approval letters, specifications, schedules and attachments required by this Order are subject to EPA approval and shall be incorporated into this Order upon approval by EPA. In the event of conflict between this Order and any document attached to, incorporated in or enforceable hereunder, the provisions of this Order shall control. event that EPA disapproves any required submission, EPA will (1) specify the deficiencies in writing and/or (2) may submit its own modifications to the Respondent. Respondent shall amend and submit to EPA a revised submission that responds to and corrects the specified deficiencies within five (5) business days of receipt of EPA disapproval or such longer time as may be specified by EPA in its discretion. In the event that EPA submits its own modifications to the Respondent, the Respondent is hereby required to implement such modifications. Any noncompliance with EPA-approved reports, plans, specifications, schedules, attachments, or submission of deficient revisions following EPA disapproval, or non-compliance with EPA required modifications in the case of subsequent disapprovals as specified in this paragraph shall be considered a failure to comply with a requirement of this Order. Determination(s) of non-compliance will be made by EPA.

- 8.10 In addition to the reports required by this Order. Respondent shall provide to EPA, upon written request, any and all information and documents in its possession, custody or control resulting from and/or pertaining to Work performed by Respondent including, but not limited to, analytical data (including raw data), Site safety data, Site monitoring data, operational logs, copies of all hazardous waste manifests (including copies of all hazardous waste manifests signed upon receipt of the hazardous wastes by a licensed treatment, storage or disposal facility), the identity of treatment, storage and/or disposal facilities used, the identity of transporters used, the identity of any contractors, subcontractors and supervisory personnel used, information and documents concerning Respondent's compliance with Quality Assurance and Quality Control requirements of this Order, information and documents relating to Respondent's efforts to secure access, and information and documents relating to any project delays. Nothing herein shall be interpreted as limiting the inspection and informationgathering authority of EPA under Federal law.
- 8.11 Within twenty (20) calendar days of the date Respondent concludes it has completed implementation of the RAP, Respondent shall submit a written report to EPA. The written report shall detail the work undertaken to implement the RAP, and shall be certified by Respondent in accordance with the terms of paragraph 18.1(b) below. EPA will review the adequacy of Respondent's implementation of the RAP and accomplishment of work items specified in paragraph 8.3 above. EPA will notify Respondent, in writing, of any deficiencies and the actions required to correct such deficiencies. Respondent shall develop an additional plan or amend the existing RAP to address such deficiencies and shall perform such corrective actions in a manner consistent with the NCP and all applicable Federal laws and regulations. Any additional plan or amendment will be subject to the approval procedures outlined in paragraphs 8.5 and 8.9 above.
- 8.12 Respondent shall not handle or remove any hazardous substances from the Site except in conformance with the terms of this Order and all applicable Federal, State and local laws and regulations as required by the NCP.
- 8.13 Respondent shall not commence any Work except in conformance with the terms of this Order. Respondent shall not commence implementation of the RAP developed hereunder until receiving written EPA approval to proceed.
- 8.14 Respondent shall immediately notify EPA's Project Coordinator and the National Response Center [(800) 424-8802] in the event of any action or occurrence during the pendency of this Order which causes or threatens to cause an additional release of hazardous substances, pollutants or contaminants on, at, or from

the Site, or which may create a danger to public health, welfare or the environment.

8.15 In the event that EPA believes that response actions or other current activities at the Site by the Respondent are causing or may cause a release of hazardous substances, or a threat to public health or welfare or the environment, EPA may, at its discretion, immediately halt or modify such response actions or other activities to eliminate or mitigate such release or threat of release.

IX. DESIGNATED PROJECT COORDINATORS

- Respondent shall designate a Project Coordinator and shall notify EPA of its designated Project Coordinator no later than seven (7) business days after the effective date of this Order. Designation of a Project Coordinator shall not relieve Respondent of its obligations to comply with all requirements of this Order. The Respondent's Project Coordinator shall be a technical and/or managerial representative of the Respondent and may be a contractor and/or consultant; provided, however, the Respondent's Project Coordinator shall not be its legal representative in this matter. The Project Coordinator for EPA designated pursuant to this Section and the Project Coordinator for the Respondent shall be responsible for overseeing the Work. To the maximum extent possible, communications between the Respondent and EPA and all documents concerning the activities performed pursuant to the terms and conditions of this Order, including plans, reports, approvals, and other correspondence, shall be directed to the Project Coordinators.
- The Project Coordinator for EPA is:

Terry Stilman On-Scene Coordinator U.S. Environmental Protection Agency Removal Enforcement Section (3HW33) 841 Chestnut Building Philadelphia, PA 19107 (215) 597-6686

- 9.3 Respondent shall have the right to change its Project Coordinator. Such a change shall be accomplished by notifying the EPA Project Coordinator in writing at least five (5) calendar days prior to the change.
- 9.4 EPA shall have the right to change its Project Coordinator at any time without prior notice to Respondent. EPA's intent is to notify the Respondent as soon as practicable following any such change of its Project Coordinator.

- 9.5 The absence of the EPA Project Coordinator from the Site shall not be cause for the stoppage or delay of Work except when such stoppage or delay is specifically required by EPA.
- 9.6 The EPA Project Coordinator shall have the authority to halt or modify Work or other activities performed by Respondent at the Site to eliminate a release or threat of release of hazardous substances. Such direction by the EPA Project Coordinator may be given verbally or in writing. If such direction is given verbally, the EPA Project Coordinator will later memorialize such direction in writing.

X. QUALITY ASSURANCE

The Respondent shall use quality assurance, quality control, and chain of custody procedures in accordance with the "EPA NEIC Policies and Procedures Manual" dated May 1978, revised November 1984, EPA Document 330/9-78-001-R and "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," December 1980, QAMS-005/80, and "QA/QC Guidance for Removal Activities", April 1990, EPA/540/G-90/004, while conducting all sample collection and analysis activities required by this Order. The Respondent shall consult with EPA in planning for, and prior to, all sampling and analysis required by the approved WP. The Respondent shall use a laboratory(s) which has a documented Quality Assurance Program that complies with EPA guidance document QAMS-005/80.

XI. SITE ACCESS

- 11.1 As of the effective date of this Order, Respondent shall provide to EPA and its employees, agents, consultants, contractors, and other authorized and/or designated representatives, for the purposes of conducting and/or overseeing the Work, access to all property owned or controlled by Respondent wherein Work must be undertaken. Such access shall permit EPA and its employees, agents, consultants, contractors, and other authorized and designated representatives to conduct all activities described in paragraph 11.3 of this Order.
- 11.2 To the extent that property wherein Work must be undertaken is presently owned or controlled by parties other than the Respondent, the Respondent shall use its best efforts to obtain Site access agreements from the present owners. Such access agreements shall be finalized as soon as practicable but no later than five (5) calendar days after receiving EPA's written notice to proceed. Such agreements shall provide reasonable access for Respondent and its employees, agents, consultants, contractors and other authorized and designated representatives to conduct the Work, and for EPA and its designated representatives to

conduct the activities outlined in paragraph 11.3 below. In the event that any property owner refuses to provide such access or access agreements are not obtained within the time designated above, whichever occurs sooner, the Respondent shall notify EPA at that time, in writing, of all efforts to obtain access and the circumstances of the failure to obtain such access. EPA may then take steps to provide such access.

- 11.3 EPA and its employees, agents, contractors, consultants and its authorized and designated representatives shall have the authority to enter and freely move about the location where the response actions and/or work is being performed at all reasonable times for the purpose of, inter alia: inspecting Work, inspecting records, operating logs, and contracts related to the Site; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting such tests as EPA deems necessary; using a camera, sound recording or other documentary type equipment; and verifying the data submitted to EPA by the Respondent. The Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, in any way pertaining to the Work.
- 11.4 Notwithstanding any provision of this Order, EPA retains all of its access and information-gathering authorities and rights under CERCLA and any other applicable statute or regulation.

XII. RESERVATION OF RIGHTS

- 12.1 Except as expressly provided in this Order, EPA reserves all rights, claims, interests and defenses it may otherwise have, and nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, including the right to seek injunctive relief and/or the imposition of statutory penalties.
- 12.2 As provided by this Order, EPA expressly reserves its right to disapprove of Work performed by Respondent; to halt Work being performed by Respondent if Respondent has not complied with an approved RAP or this Order, or at any time EPA deems necessary to protect public health, welfare or the environment and to perform such Work; to request and require hereunder that Respondent corrects and/or reperforms any and all Work pursuant to paragraph 8.3 disapproved by EPA; and/or to request or require that Respondent perform response actions in addition to those required by this Order. In the event that EPA requires Respondent, and Respondent declines, to correct and/or reperform work that has been disapproved by EPA and/or to perform response in addition to those required by this Order, EPA reserves the right to undertake such actions and seek reimbursement of the costs incurred, and/or

to seek any other appropriate relief. In addition, EPA reserves the right to undertake removal and/or remedial actions at any time that such actions are appropriate under the NCP and to seek reimbursement for any costs incurred, and/or take any other action authorized by law.

- 12.3 EPA reserves the right to bring an action against the Respondent for recovery of all oversight and other response costs incurred by the United States related to this Order which are not reimbursed by the Respondent, as well as any other costs incurred by the United States in connection with response actions conducted pursuant to CERCLA at the Site.
- 12.4 This Order concerns certain response actions (Work described in Section VIII, above) concerning the Site. Such response actions might not fully address all contamination at the Site. Subsequent response actions which may be deemed necessary by EPA are not addressed by this Order. EPA reserves all rights including, without limitation, the right to institute legal action against Respondent and/or any other parties, in connection with the performance of any response actions not addressed by this Order.
- 12.5 EPA reserves the right to take enforcement actions, including actions for monetary penalties, for any violation of law, regulation, or of this Order. Failure to comply with this Order subjects Respondent to the assessment of civil penalties of up to \$25,000 per day and/or punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure pursuant to Sections 106(b) and 107(c) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c). EPA may also undertake such other actions as it may deem necessary or appropriate for any purpose including, but not limited to, actions pursuant to Sections 104 and/or 106 of CERCLA, 42 U.S.C. §§ 9604 and 9606.
- 12.6 Nothing in this Order shall limit the authority of the On-Scene Coordinator as outlined in the NCP and CERCLA.

XIII. OTHER CLAIMS

13.1 Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation not bound by this Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Site.

- 13.2 This Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2).
- 13.3 Neither EPA nor the United States, by issuance of this Order, assumes any liability for any acts or omissions by Respondent, or Respondent's employees, agents, contractors, or consultants engaged to carry out any action or activity pursuant to this Order, nor shall EPA or the United States be held out as a party to any contract entered into by Respondent or by Respondent's employees, agents, contractors, or consultants engaged to carry out the requirements of this Order.
- Nothing herein shall constitute or be construed as a satisfaction or release from liability of Respondent or any other person.

XIV. OTHER APPLICABLE LAWS

14.1 All Work shall be undertaken in accordance with the requirements of all applicable local, State, and Federal laws and regulations, as required by the NCP.

EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

- The effective date of this Order shall be three (3) business days after it is signed by EPA.
- 15.2 This Order may be modified or amended by EPA. Such amendments shall be in writing and shall have as their effective date the date on which such amendments are signed by EPA. Modifications to the EPA-approved RAP and its implementation may be made by the EPA Project Coordinator. Such modifications shall be memorialized in writing by the Project Coordinator.
- 15.3 Any reports, plans, specifications, schedules, or other submissions required by this Order are, upon approval by EPA, incorporated into this Order. Any non-compliance with such EPAapproved reports, plans, specifications, schedules, or other submissions shall be considered non-compliance with the requirements of this Order. Determinations of non-compliance will be made by EPA.
- 15.4 No informal advice, guidance, suggestions or comments by EPA regarding reports, plans, specifications, schedules, or other submissions by the Respondent or the requirements of this Order will be construed as relieving the Respondent of its obligation to obtain formal approval when required by this Order, and to comply with the requirements of this Order unless formally modified.

LIABILITY OF THE UNITED STATES GOVERNMENT

Neither the United States Government nor any agency thereof shall be liable for any injuries or damages to persons or property resulting from acts or omissions of Respondent, or of its employees, agents, servants, receivers, successors, or assigns, or of any persons, including, but not limited to firms, corporations, subsidiaries, contractors, or consultants, in carrying out the Work, nor shall the United States Government or any agency thereof be held out as a party to any contract entered into by Respondent in carrying out the Work.

XVII. FAILURE TO PERFORM/PERFORMANCE EVENTS

- 17.1 In the event of an inability or anticipated inability on the part of Respondent to perform any of the actions or Work required by this Order in the time and manner required herein, the Respondent's Project Coordinator shall notify EPA orally as soon as possible but no later than within twenty-four (24) hours of such event (or, if the event occurs on a Friday or Saturday, no later than the following Monday) and in writing no later than seven (7) calendar days after Respondent becomes aware or should have become aware of such delay or anticipated delay. written notification shall be certified by a Responsible Official of Respondent in accordance with Section XVIII of this Order and shall describe fully the nature of the delay, including how it may affect the Work, RAP and schedule; the actions that will be or have been taken to mitigate, prevent, and/or minimize further delay; and the timetable according to which future actions to mitigate, prevent and/or minimize the delay will be taken. notification shall not relieve Respondent of any obligation of this Order. The Respondent shall adopt all reasonable measures to avoid and minimize such delay.
- 17.2 Failure by Respondent to carry out any requirement of this Order in accordance with the terms and conditions specified herein may result in the unilateral performance of the required actions by EPA pursuant to applicable authorities, an action to recover treble damages pursuant to CERCLA, and/or the initiation of an enforcement action against Respondent to require Respondent to perform such actions, in addition to any other relief that may be available to EPA pursuant to applicable law.
- 17.3 Nothing in this paragraph or any other provision of this Order shall be construed so as to limit any powers EPA may have under CERCLA, the NCP, or any other law or regulation.

XVIII. CERTIFICATION OF COMPLIANCE

- 18.1 (a) Unless otherwise required by the terms of this Order, any notice, report, certification, data presentation, or other document submitted by Respondent under or pursuant to this Order, which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or non-compliance with any requirement(s) of this Order shall be certified by either a responsible official of the Respondent or by the Project Coordinator for the Respondent. The term "responsible official" means: (a) a president, secretary, treasurer or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (b) the manager of one or more manufacturing facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$35 million (in 1987 dollars when the consumer price index was 345.3), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. The responsible official of a partnership or sole proprietorship means the general partner or the proprietor, respectively.
- (b) The written report required by paragraph 8.11 of this Order, and any delay described in paragraph 17.1 of this Order, shall be certified by a responsible official of Respondent.
- 18.2 The certification required by paragraph 18.1 of this Order shall be in the following form:

"Except as provided below, I certify that the information contained in or accompanying this (type of submission) is true, accurate, and complete. As to (the/those) portion(s) of this (type of submission) for which I cannot personally verify (its/their) accuracy, I certify under the penalty of law that this (type of submission) and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true,

accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:	
Name(print)	:
Title:	

18.3 Submission of documents pursuant to this Order which are found by EPA to contain false information shall constitute a failure to comply with this Order and shall subject Respondent to penalties whether or not a responsible official of Respondent has certified the document.

XIX. SHIPMENT OF HAZARDOUS SUBSTANCES

- 19.1 Respondent shall, prior to any off-site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's Project Coordinator of such shipment of hazardous substances. However, the notification to EPA of shipments shall not apply to any such off-site shipments when the total volume of all such shipments will not exceed ten (10) cubic yards. Notifications to States in those circumstances shall be governed by applicable state law.
- 19.2 The notification required by paragraph 19.1 shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation of the hazardous substances. Respondent shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.
- 19.3 The identity of the receiving facility and state will be determined by Respondent. Respondent shall provide all relevant information, including information under the categories noted in paragraph 19.1, above, on the off-site shipments, as soon as practicable, but no later than twenty-four (24) hours before the hazardous substances are actually shipped.

XX. NOTICE OF INTENT TO COMPLY

20.1 Respondent shall notify EPA's Project Coordinator within five (5) business days after the effective date of this Order of Respondent's intention to comply with the terms of this Order. Failure of Respondent to provide notification to EPA's Project Coordinator of intent to comply within this time period shall be deemed a violation of this Order by Respondent.

XXI. OPPORTUNITY TO CONFER WITH EPA

21.1 Not later than two (2) business days from the effective date of this Order, Respondent may confer with EPA to discuss this Order. Such conference is not an adversarial hearing or part of a proceeding to challenge this Order, and no official stenographic record of such conference shall be kept.

XXII. ADMINISTRATIVE RECORD

22.1 The Administrative Record upon which this Order is issued is available for review by Respondent's representatives at its request. Requests to review the Administrative Record shall be submitted to the EPA Project Coordinator designated pursuant to Section IX of this Order.

XXIII. DEFINITIONS

- 23.1 "Business Days" as used in this Order shall mean every day of the week except Saturdays, Sundays and federal holidays.
- 23.2 "Calendar Days" as used in this Order shall mean every day of the week, including Saturdays, Sundays and federal holidays.
- 23.3 "Work" as used in this Order shall mean all requirements of this Order, including any modifications hereto.
- 23.4 All terms not defined herein shall have the meanings set forth in CERCLA and the NCP.

XXIV. TERMINATION AND SATISFACTION

24.1 The Respondent's obligations to EPA under this Order shall terminate and be deemed satisfied upon the Respondent's receipt of written notice from EPA that the Respondent has demonstrated, to the satisfaction of EPA, that all the terms of this Order have been satisfactorily completed.

/ Qalth





Lead and Your Health

ATSDR developed this fact sheet to provide the Portsmouth community with information about lead and health. You may have questions the fact sheet doesn't answer or need more information about ATSDR and its activities. Contacts are listed at the end of the fact sheet.

Why is ATSDR in Portsmouth?

On August 19, 1992, Portsmouth city officials asked ATSDR to review results of blood lead tests for people who live near the Abex plant. The Environmental Protection Agency (EPA) investigated the site and found very high levels of lead in the soil on-site. Off-site, in the neighborhood nearby, levels were not as high, but were still of concern to EPA, the city, and ATSDR. EPA is now removing contaminated soil.

How Could I Be Exposed to Lead?

People are often exposed to lead. Lead is common at waste sites, and is also in the environment because paints and gasoline used to have lead. People can be exposed to lead by breathing air, drinking water, eating foods, or swallowing dust or dirt.

Lead poisoning in children is a serious health problem in the United States. Children are at the most risk for lead poisoning, and also have the worst health problems if they are exposed. Children play outside, crawl on floors or the ground, and put their hands in their mouths or even eat dirt. All these normal actions could mean they are exposed, if lead is in the air, soil, dust, or water.

In addition to children, pregnant women and their babies are also at risk for health effects from lead exposure.

What About My Health?

Lead in the body can be measured by taking a blood sample from a vein. The level is reported in *micrograms per deciliter*, written μ/dL . A microgram is 1 millionth of a gram, which is the same as 1/28th of an ounce -- a very, very small amount. A deciliter is 1/10th of a liter, or about 3-1/3 liquid ounces.

The U.S. Centers for Disease Control (CDC) has these criteria for blood levels of lead in children younger than 6 --

%	less than 10 μ /dL	No lead poisoning. No follow up is needed.
**	10-14 <i>μ</i> /dL	This level is borderline. Doctors can't tell if a child's health is affected, but exposure should be reduced. The test should be repeated in 3 months.
**	15-19 μ/dL	At this level, lead can lower a child's IQ, or intelligence quotient. Other health effects may be hearing problems, speech and language handicaps, and a short attention span. Lead exposure should be reduced, and the child's blood lead levels should be closely watched.
**	20-69 μ/dL	Lead levels this high can cause learning disabilities, anemia, and kidney problems. Doctors should do a complete medical exam, including an evaluation of the child's behavior and mental function and environment. Children with levels more than $45~\mu/\mathrm{dL}$ need urgent medical treatment.
**	more than 70 μ/dL	This level is a medical emergency.

How Can I Reduce Exposure?

Lead poisoning can be prevented! Follow these steps to reduce exposure to lead --

- Children should wash their hands often, especially before eating. This removes dust and dirt that can be contaminated with lead.
- Try to keep children from putting things in their mouths. Toys may be dusty or dirty. Paint chips and walls, windows, floors, and other surfaces may have lead-based paint.
- Try to keep houses dusted. Wet-wash or wet-mop window sills, walls, floors, and other surfaces with high-phosphate detergent and water.
- Keep grass or sod where children play outside. This will reduce exposure to dirt and dust.

- People who work in mines, smelters, or construction should take a shower and change their clothes before they come home from work. Work clothes should be washed separately from other clothes.
- If you don't know if ceramic/pottery dishes are glazed with lead (this is common in dishes made outside the U.S.), don't use those dishes to prepare, cook, or serve food.
- Don't store or cook canned foods in open cans.
- Be careful when working with hobby supplies that have lead. Hobbies that may involve leaded products are making jewelry, stained glass, and ceramics/pottery and casting bullets and sinkers.
- Some folk medicines may have lead. Don't use folk medicine unless you know there is nothing in it that might be harmful. Also, some traditional remedies -- such as eating soil during pregnancy -- can be bad for you if dirt is contaminated.

A Well-Balanced Diet is Important!

A well-balanced diet helps protect against lead poisoning. If you have enough calcium, iron, and vitamin C in your diet, the lead absorbed in your body will be smaller. On the other hand, if fat is a large part of your diet, your body will take in more lead.

These are good sources of calcium, iron, and vitamin C --

◆ Calcium milk, cottage cheese, cheese, and yogurt

◆ Iron raisins, spinach and other greens, fish, poultry (without the skin), liver, lean meat, and eggs

♦ Vitamin C fruits and fruit juices, tomatoes, and potatoes (with skin)

Stay away from foods high in fat like oil, lard, butter, margarine, and fried foods. Beware of "hidden" fat in prepared foods. Read labels to see how much fat food has.

If you have health concerns or information to share about ways people might have been or might now be exposed to lead, please share them with ATSDR staff or city officials at the meeting, or contact the people listed on the back. Thank you for your help.

Write or Call

- ▲ Bucky Walters, Jack Kelly, or Felicia Dailey ATSDR Regional Representatives Hazardous Waste Management, Region III 841 Chestnut Building Philadelphia, PA 19107 215/597-0803
- ▲ Dr. Cynthia Lewis, Senior Medical Officer ATSDR-Division of Health Assessment and Consultation 1600 Clifton Road, NE (E32) Atlanta, GA 30333 404/639-0631



This fact sheet was developed to provide the public with information about ATSDR Health Consultations. ATSDR hopes it is useful to you in understanding what a Health Consultation is and how it can help you. You may have questions the fact sheet doesn't answer or need more information about ATSDR and its activities. A contact person is listed at the end of the fact sheet.

What is ATSDR?

ATSDR is the Agency for Toxic Substances and Disease Registry, a federal public health agency. ATSDR is part of the Public Health Service in the U.S. Department of Health and Human Services. ATSDR is not a regulatory agency like the U.S. Environmental Protection Agency. Created by Superfund legislation in 1980, ATSDR's mission is to prevent or mitigate adverse human health effects and diminished quality of life resulting from exposure to hazardous substances in the environment. Through its programs -- including surveillance, registries, health studies, environmental health education, and applied substance-specific research -- and by working with other federal, state, and local government agencies, ATSDR acts to protect public health.

What is a Health Consultation?

An ATSDR Health Consultation is not the same thing as a medical exam, a community health study, or a Public Health Assessment. It can sometimes lead to those things, as well as other public health activities.

A Health Consultation provides advice on a specific public health issue related to real or possible human exposure to toxic material. Anyone can request a Health Consultation. ATSDR receives the most requests from EPA and state and local health and environmental departments, and provides about 1,000 Health Consultations per year.

A Health Consultation is a way for ATSDR to respond quickly to a need for health information on toxic substances and make recommendations for actions to protect the public's health. ATSDR staff evaluate information available about toxic material at the site, determine whether people might be exposed to it, and report what harm exposure might cause. Health Consultations may consider —

88 -	what the levels (or "concentrations") of hazardous substances are
8	whether people might be exposed to contamination and how (through: "exposure pathways" such as breathing air, drinking or contacting water; contacting or eating soil, or eating food)
**	what harm the substances might cause to people (or the contaminants' "toxicity").
*	whether working or living nearby might affect people's health
※ , .	other dangers to people, such as unsafe buildings, abandoned mine shafts, o other physical hazards

What Happens After the Health Consultation?

Every Health Consultation includes ATSDR's conclusions about public health hazards and recommendations for actions to protect the public's health. ATSDR's recommendations can cover many activities by EPA and state environmental and health agencies, as well as by ATSDR. For example, ATSDR recommendations can contribute to —

**	site cleanup
**	keeping people away from contamination and physical dangers — for example, by fencing the site
*	giving residents acceptable drinking water

- relocating exposed people

 community environmental health education for residents and health care providers to inform them about site contaminants, harmful health effects, and
- an ATSDR or state health study

ways to reduce or prevent health effects

In addition, a Health Consultation can lead to other ATSDR activities -- specifically, a **Public Health Assessment** or **Public Health Advisory**.

ATSDR Public Health Assessments report on sites but in more detail. They rely on three main types of information —

- environmental data, such as information available on contaminants and how people could come in contact with them
- mealth data, including available information on community-wide rates of illness, disease, and death compared with national and state rates
- community concerns, such as reports from the public about how the site affects their health or quality of life

Public Health Advisories are notices from ATSDR's administrator to EPA's administrator. They are used when sites pose an immediate and significant threat to people.

Fact sheets are available on Public Health Assessments, Public Health Advisories, and other ATSDR activities. If you want to know more about ATSDR, or if you have health concerns about a site or information to share about ways people might have been or might now be exposed to hazardous substances, please contact the person listed below.

For more information, call or write:

Lydia Ogden Askew Community Involvement Liaison ATSDR-Division of Health Assessment and Consultation 1600 Clifton Road, NE (E32) Atlanta, Georgia 30333 404/330-9543 (24 hours)

ATSDR, Toxicological Profile for Leod

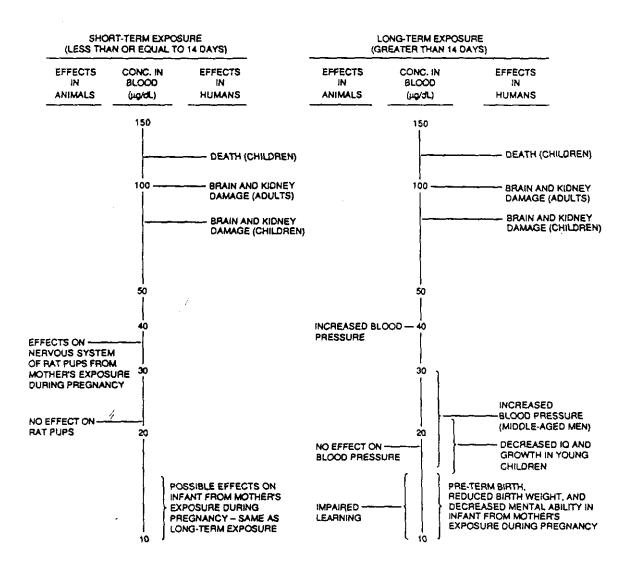
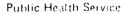


Fig. 1.1. Health effects from ingesting and breathing lead.

Procedure for Lead Screening (Abex) Follow-up

- 1. Figures on total number of individuals screened; breakdown as to adults, children, abnormals, will be kept by Teri Young, who will receive the incoming results first.
- 2. Abnormals will be separated out and reviewed by the physician or by Sharon Wright. Sharon will take the abnormals to Dolly Carroll, who will attach CHS-1 paperwork and make charts. Sharon will initially try to reach the patients with abnormal levels by phone. If she is unable to reach, a home visit will be arranged by Shirley Lacey, at which time a follow-up visit to a Lead Clinic (held every Wednesday in the Pediatric Clinic area at 1:00PM) will be scheduled. A Wednesday afternoon appointment sheet for Lead clinic will be kept in the front of the Pediatric appointment book. The recheck appointments for patients being seen in lead clinic that day will be made while the patient is in clinic and written on an appointment sheet which will then be brought to the front desk and placed in the Peds appointment book as above. A volunteer or aide will be available in clinic to record these appointments and give appointment cards.
- 3. There will be two nurses (or a nurse and a doctor) and two dietitians in the Lead clinic. The nurses will conduct the lead education and do the environmental questionnaire. The dietitians will do the dietary history. The history and questionnaire will be placed in the patient's chart upon completion and the patient will receive the handout on lead reduction. An environmental investigation form for soil and water (2 different forms) will also be completed by the nurse.
- 4. The information on all abnormals will be entered into the Stellar computer system and on the paper log.
- 5. Dolly Carroll will receive all normal results and will attach the CHS1 paperwork. The results will be logged into the Stellar system and will be logged on the paper log. Carol Canada will supervise the sending out of the letters to notify the patients of the results. All paperwork will have "letter sent" and the date noted as this is done. All results logged into the computer will have an ID number in the upper right hand corner of the lab slip.
- 6. Once the normal results are logged and letters done, they will have holes punched and will be placed in the record keeping binders.
- 7. A lead workroom will be set up in the old Epi Rep room, number 226. Carol Canada and Evelyn Goodman have keys to the room. Dr. McCarron's personal computer, which has the Stellar system on it, will be moved into this room. All Abex related records will be kept in the room.
- 8. Dr. McCarron or Sharon Wright will assume responsibility for returning lead-related phone calls.

- 9. A letter will be sent to the patient's medical provider advising the results if the results are abnormal.
- 10. If the patient wishes a medical exam, he or she may go to his/her private physician. If there is no private physician, he or she may be referred to CHKD (if a child) and to Elm Street (if an adult.)
- 11. Copies of letters to patients and physicians will be attached to the patient's paperwork or charts.
- 12. Tony will work on the D-Base on the computer to design a program so that a directory readout, not currently possible, can be obtained.
- 13. Carol Canada has worked with the Stellar system and will inservice others so that more people will be available to log in results.





Agency for Toxic Substances and Disease Registry Atlanta GA 30333

DATE: July 2, 1992

FROM: Region III Representative

SUBJECT: Information on the Abex Corporation NPL Site

TO: Cynthia Harris, Chief

Community Health Branch, DHAC

Enclosed you will find the following information concerning the Abex Corporation NPL Site. All or portions of this information may prove useful should ATSDR become actively involved with this site in the coming weeks.

- * Remedial Investigation Report, GEO Engineering, Inc., October 1991;
- * Data Package for Abex Lead Site, EPA Region III, November 12, 1991 (Note: This package was never transmitted to ATSDR Region III for preparation of a health consultation. ATSDR received the package from EPA on June 25, 1992 for reference purposes regarding potential blood sampling efforts);
- * Minutes of the public meeting held on June 25, 1992, Ann Troutman, Virginia Department of Waste Management (VDWM);
- * Significant Issue paper concerning elevated lead levels at a day care center located approximately 5 blocks from the Abex Corporation Site, Drew Lausch, RPM, July 23, 1991 (elevated lead levels may not be site-related);
- * Proposed Plan for Operable Unit 1 at the Abex Site, April 28, 1992 (comment period has been extended to July 10, 1992);
- * Administrative Order for Removal Response Activities at the Abex Site, EPA Region III, March 30, 1992;
- * Significant Issue paper concerning EPA Region III's activities at the Abex site, Leanne Nurse, Community Affairs Specialist, date not indicated (approximate date July 1, 1992);
- * Miscellaneous newspaper articles, letters from residents to the VDWM;

* Photographs taken of the site and surrounding area during a June 26, 1992 visit by myself and Dr. Ram Tripathy of the Virginia Department of Health.

Please contact either Felicia or myself should you have any questions or need EPA to clarify specific issues. Both Felicia and I look forward to our conference call next week.

Jack Kelly

Euclosuzes

LEAD TESTS DONE AT WASHINGTON PARK

DATE	NUMBER
July 15, 1992	107
July 17, 1992	136
July 25, 1992	. 82
August 8, 1992	168
TOTAL	493

LEAD TESTS DONE AT PORTSMOUTH HEALTH DEPARTMENT

DATE	NUMBER
July 8, 1992 - August 10, 1992	53

Total number of screenings to date: 546

As of August 25, 1992: 4 reports have not come back

Percent of reports returned that were mildly elevated: 3.84%

· ONE @ 10 = CP W/ SHAFELLANYE SAMPLING 204493 · " " 11/12 = FORMER RESIDENT 2

List of Abnormal Lead Levels:

Total Number of Abnormals Identified:

21 Patients

Patient	Screening Date	Age	Lead Level	Lead Level Interpretation	Class
Α	7/25/92	4 YEARS	12	Mildly Elevated	2A
В	7/15/92	8 YEARS	u	Mildly Elevated	2A
С	8/18/92	5 YEARS	10	Mildly Elevated	2A
۵	8/8/92	2 YEARS	19)	Mildly Elevated	2B
E	7/17/92	5 YEARS	10	Mildly Elevated	2A
F	7/15/92	10 YEARS	13	Mildly Elevated	2A
G	7/25/92	4 YEARS	12	Mildly Elevated	2A
Н	7/25/92	11 YEARS	15)	Mildly Elevated	2B
I	7/15/92	2 YEARS	11	Mildly Elevated	2A
J	7/15/92	6 YEARS	13	Mildly Elevated	2A
K	8/8/92	3 YEARS	10	Mildly Elevated	2A
L	8/8/92	10 YEARS	10	Mildly Elevated	2A
М	8/8/92	14 YEARS	(19)	Mildly Elevated	2 B
N	7/15/92	10 YEARS	12	Mildly Elevated	2A
0	7/15/92	7 YEARS	(14)	Mildly Elevated	2A
P	7/15/92	2 YEARS	(14)	Mildly Elevated	2A
Q	7/15/92	7 YEARS	10	Mildly Elevated	2A
R	7/15/92	6 YEARS	10	Mildly Elevated	2A
S	7/17/92	8 YEARS	11	Mildly Elevated	2A
Т	7/17/92	5 YEARS	14	Mildly Elevated	2A
ַט	7/25/92	8 YEARS	10	Mildly Elevated	2A

C/S @ PG STORAGE Total Class 2A - 18 patients, age 2 through age 10 years

Total Class 2B - 3 patients, (1) age 2 years old, (1) age 11 years, (1) age 14 years

Range of ages of all abnormals identified so far: 2 years through 14 years

Number of male children:

14

Number of female children:

INTERPRETATION OF BLOOD LEAD LEVELS

1. CLASS I less than 10

(2.) CLASS IIA 10 - 14

3. CLASS IIB 15 - 19

4. CLASS III 20 - 44

5. CLASS IV 45 - 69

6. CLASS V 70 plus

Low risk for high dose exposure screen at 12-15 months of age.

High risk for high dose exposure screen at 6 months of age.

Rescreen in 3 months
Environmental History
Dietary History
Lead Reduction Education

Everything listed for Class IIA, plus rescreen in 1 month, and every 3 - 4 months thereafter.

If two consecutive venous blood tests fall in this range, an environmental investigation and abatement should be conducted.

Test for iron deficiency

Do as above, plus rescreen immediately for confirmation.

Refer for medical evaluation and follow-up.

Rescreen every 3 - 4 months thereafter detailed behavioral and developmental history.

Complete environmental investigation.

As above, plus
Begin medical and environmental
assessment and remediation within 48
hours.

Immediate rescreen for confirmation.

Repeat testing every 3 - 4 months.

A medical emergency, necessitates immediate referral to specialists.

Environmental assessment immediately.

MEMORANDUM

Date: July 10, 1992

To: Venita Newby-Owens, M.D., M.P.H.

Health Director

Vic Goodman, Administrator

From: Ann McCarron, M.D.

Dolly Carroll, Office Services Supervisor Senior

Subject: ABEX-related Lead Screening

Following is a rewrite of the proposed policy for ABEX-related Client Lead Screening, based on suggestions given during the meeting of July 9, 1992.

- 1. Clients requesting lead screening relative to the ABEX site will be routed to the Appointment Desk. They will immediately be asked if they have a record or have ever been seen as a client in the Portsmouth Health Department. If so, that chart will be pulled and updated to include the ABEX related neighborhood address and length of time the patient resided there as well as name, address and phone number of personal physician. Those clients not previously seen will be asked to fill out a CHS-1, including the length of time they resided in the ABEX related neighborhood. Under the "remarks" section, they will list the name, address and phone number of their private physician. Those clients having no private physician will state that fact.
- 2. An encounter form will be completed by the clerk at the Appointment Desk, and will indicate that the lead test is for ABEX. A lab slip for the STATE LAB will also be completed by the clerk. The client will then be sent to the lab for testing. No charge will be made for these services.
- 3. The client will also be asked to sign a "responsibility form" (attached) which indicates understanding of the procedures to be followed and an awareness of personal responsibility to follow through with the recommendations given.
- 4. All results will be logged by the lab in a separate ABEX lead log. No charts will be maintained, however, there will be a separate ABEX folder, which will contain the CHS-1, responsibility form and lab results, along with any other notes. Those clients having a previous record within the Health Department will have a notice placed in the ABEX folder referring any reviewer to the client's chart.

- 5. All results designated for private physicians will be sent to these doctors, and the procedure for follow-up will be between the physician and his patient. A form letter will be ssent directly to the physician advising him of the client's lead screening. A copy of this letter will be placed in the record.
- 6. All results for clients who do not have a private physician will be reviewed by Dr. McCarron. Those clients having an abnormal lead level who are 12 years of age and younger will be handled or referred by Dr. McCarron as pediatrician. Those clients having an abnormal lead level who are older than 12 years of age will be referred to an outside source such as the Elm Avenue Center for Health or Portsmouth Family Practice.
- 7. A form letter will be developed to advise the client of the Normal or Abnormal results and the appropriate followup to be pursued. Again, the client will be notified emergently if necessary; however, if not emergent, three phone calls will be attempted. If the patient is not reached, a written contact will be made. No further attempts to contact will be made past this point. Documentation of telephone and written contacts and attempts will be carefully maintained in the record.

Procedure for Lead Screening (Abex) Follow-up

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- 13. Carol Canada has worked with the Stellar system and will inservice others so that more people will be available to log in results.

STATEMENT OF PROCEDURE AND RESPONSIBILITY LEAD SCREENING

I understand that I am requesting to have a serum lead level and that this involves the drawing of a blood specimen.

This specimen will be sent to another laboratory for processing and the results will not be available for several days.

Serum lead levels will be sent directly to my private physician. Arrangements for review of the test results and any treatment which may be indicated will need to be arranged between that physician and myself.

If I have not designated a private physician as my regular doctor, the results of the lead testing will be returned to the Portsmouth Health Department and will be reviewed.

- IT IS VERY IMPORTANT THAT TWO CURRENT TELEPHONE NUMBERS where I may be reached are given to the secretary when I register.

 Two numbers are required so that I may be contacted by telephone if the results are abnormal.
 - a. Three attempts by telephone contact will be made.
 - b. If telephone contact is unsuccessful, contact will be made by mail.
 - c. If there is no response, it will be my responsibility to contact the Health Department for my results.

Appropriate medical referrals will be made as the results indicate, and the clients will be informed of where to go and whom to contact for this follow-up.

Once I receive a medical referral, IT IS THEN MY RESPONSIBILITY to follow through on these recommendations. A written notification of NORMAL or ABNORMAL will be sent to the address I give.

I have read the above information and understand the procedure for lead screening. I understand my responsibility to follow through on the recommendations made to me.

Date:	Signature:
	Witness:



City of Portsmouth, Virginia

Pepartment of Public Acalth P. G. Box 1454 Portsmouth, Birginia 23705-1454

Teiablished 1752

(804) 393-8585

DATE:	
TO:	***
SUBJECT:	Lead Screening Results
by the Portsmouth	is a notification of the results received from your lead screening done Health Department on
No medical recomm Disease Control G recommended that	nendations are necessary for normal levels as stated by the Center for uidelines of October, 1991. If the level is done on a child, it is children between the ages of 0 and 6 years have a ROUTINE lead at the ages of 6 months, 1 year old, and every year thereafter up until
Any questions you m 393-8585.	nay have regarding these results may be directed to Dr. Ann McCarron,
AMc:rz	





City of Portsmouth, Virginia

Bepartment of Public Realth P. G. Box 1454 Portsmouth, Virginia 23705-1454

Established 1752

(804) 393-8585

August 19, 1992

Mr. William E. Wood Editorial Page Editor LETTERS TO THE EDITOR Virginian-Pilot/Ledger-Star 150 West Brambleton Avenue Norfolk, Virginia 23510

Dear Mr. Wood:

I am compelled to write to state the facts about the blood lead tests from the recent blood screenings offered to current and former residents in the area of the Abex Superfund Site.

In the past month, 540 people have had blood lead tests. As of August 11th, 344 of those test results had been returned from the State Consolidated Laboratories in Richmond. Of the 344 returned, 16 or 4.65% were "mildly elevated". This percentage is in the range reported for other cities similar to Portsmouth.

On three occasions -- July 31st, August 1st, and August 7th -- the Virginian-Pilot reported that these blood lead levels were "moderately high". This is simply untrue. "Mildly elevated" blood lead levels require no medical treatment. The necessary follow-up includes: environmental investigation/counseling, dietary counseling, education, and rescreening in three months. "Moderately high" blood lead levels require medical evaluation and treatment, possibly including hospitalization and chelation therapy, as well as environmental intervention/remediation, and counseling. You can imagine the fear that this discrepancy has created in our citizens.

A correction was printed on August 8th; however, a small correction is easily missed unless one reads the entire newspaper thoroughly.





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Mr. William E. Wood Editorial Page Editor Page 2

As a medical professional, it is extremely disturbing to me that incorrect information can be consistently presented to our citizens. It is very difficult to "undo" the damage that has been done. Hopefully, these facts will stand on their own.

Very truly yours,

Venita Newby-Owens, M.D., M.P.H.

Health Director

VNO:1Z

Enclosure:

copies of 3 articles and correction



Public housing residents warned of lead exposure

"By C.J. Clemmons

Staff Writer

5, PORTSMOUTH — Washington Park residents clustered in groups jutside their homes Thursday, anx-Jously discussing lead-exposure test results expected today.

Community leaders said some tamilies already had been notified by the city's health department that their children had "moderately thigh" levels of lead in their blood--streams.

1: "People are worried, even more -than before," said Sabrina Vincent, inother of four, who went with her children for free blood tests July 15, -17 and 25 at the Washington Park "Community Center. "Everybody is

'ready to move out of here now."

Helen Person, who has lived in the public housing complex for 25 . years, was infuriated.

"I could fry an egg on the top of my head," she said. "We just want the hell out of here."

Soil in Washington Park and the surrounding area was contaminated with lead by the Abex Corp., a brass and bronze foundry that operated ithere from 1926 to 1978.

At least two families were notified Thursday that some of their test results showed "moderately high" levels of lead.

"One is an 18-month-old baby," said Rafiq Zaidi, a longtime Washington Park resident and president of Black Concerned Citizens, a local advocacy group. Zaidi would not give the identities of the families give the identities of the families but said he believes others will be getting bad news today.

"The city's been telling us all along that we weren't in any dan-

had been complaining of headaches.

One little girl who supposedly has moderately high lead levels said "she had been eating mud pies," Vincent said.

A lawsuit was filed against the city, Abex and the U.S. Environmental Protection Agency earlier this month by Washington Park residents seeking unspecified damages for mental stress.

The residents are also suing to have the city, relocate them while the EPA decontaminates their neighborhood, which has been designated as a Superfund site.

An initial cleanup ended July 17 with soil taken from about a halfdozen spots near the housing project and the Effingham Playground

Experts say a complete cleanup probably will take up to four years and \$16 million.

Another public hearing on the matter is scheduled for Aug. 26 at



10 children at housing complex have moderately high lead fevels

By C.L. Clemmons Staff writer

PORTSMOUTH - Ten children who live in the Washington Park area have tested positive for moderately high levels of lead.

Gwen Childs, an educator with the city Health Department, said more than 300 peo-. ple had blood tests last month to check for lead. Results of 175 tests have been returned

The department conducted the tests for people who live in the Washington Park pubhe housing complex and surrounding area near Green and Seventh streets.

The neighborhoods is confaminated with lead left behind by the Aben Corps, which on-

families of the 10 children during home visits. Department, 800 Crawfieds are

Friday. Test results also will be mailed.

Childs said having a moderately high level of lead in a person's bloodkis not a medical emergency, but residents are fearful for their bealth and their children's welfare. ...

'No medical treatment is frequired at this time," Childs said.

She said the bornes of this 10 children who tested positive will be assessed for sources of lead, and their eating habits also will be studied. The children will be tested again in three

This situation can be launded, she said

The health department and agreement another estree blood seseeming from 9 a.m. to 1 p.m. at the Watchington Park Community Center.

erated a foundry there from 1928 to 1978. Those who are unacted to attend the Health department personnel notified the screening can have the test at the city Health





Value of cleaning lead from soil questioned

By C.J. Clemmons Staff Writer .

PORTSMOUTH - Removing soil from lead-contaminated areas like Washington Park might not be the most effective cleanup procedure, an Environmental Protection Agency study says.

A five-year study of Boston children shows that removing soil did not help the health of residents especially children - as much as was expected, federal environmental officials announced this week.

The study showed that after soil removai, people's lead levels dropped by an average of only onemillionth of a gram per 3.39 ounces of their blood.

"These findings raise questions

about whether the federal Superfund cleanup of Washington Park problem — a problem residents have lived with for more than 10 years.

But David Stemberg, EPA community relations coordinator, said it is too soon to determine whether the findings in Boston will affect the situation in Portsmouth.

"We're not at the point yet where we can reach any conclusions," said Sternberg. The EPA also is doing studies on the affects of soil removal in Baltimore and Cincinnati.

At the onset of the Boston study. researchers removed soil from an area surrounding 152 homes, where children had lead levels of seven to 24 micrograms of lead in one decili-

ter of blood. Ten or more micrograms is considered lead polsoning. will solve the lead contamination Lead in the soil is one of the topthree sources of lead poisoning, followed by tap water from lead pipes and lead-based paint.

More than 300 people in Washington Park took blood tests for lead levels last month. The results of only about half those tests have in been returned, and so far 10 children have were shown to have "moderately high" lead levels.

The lead in Washington Park was feetive on a number of projects." left behind by the Abex foundry. railroad parts by melting them. paint and drinking-water.

after soil was taken from about a . Saturday at the Washington Park half-dozen spots near the housing Community Center.

project and the Effingham Playground, near Seventh and Green

In June, a group of Washington Park residents filed for a federal injunction against Abex, the city of Portsmouth and the EPA to stop the cleanup until authorities pay to relocate them.

But Bill Dunnell, project manager for Geo Engineering - a New Jersey-based company hired by Abex - said soil removal "has proven el-

In light of the Boston findings, the which operated there for 50 years. EPA has devised a plan to look not beginning in 1928. Abex recycled only at soil removal, but at dust,

An initial cleanup ended July 17: Blood screenings will offered free

8/7/92 VP-LS



Disappointed crew of shuttle prepares for today's landing

CAPE CANAVERAL, Fla. — Atlantis' disheartened astronauts packed up Friday after a vexing week in which they failed to accomplish their main goal — reeling out a satellite on 12½ miles of tether.

"Unfortunately in the space exploration business, we have to put all our eggs in one basket sometimes and try to do it all," shuttle

pilot Andrew Allen said.

A jammed line forced the seven astronauts to reel in the satellite from a distance of just 750 feet Wednesday. Instead of generating the planned 5,000 volts of electricity, the tether yielded a meager 40 volts because of the short length.

Atlantis was scheduled to land at 7:39 a.m. today at Kennedy Space

Center.

Navy officer apologizes to Schroeder for skit

SAN DIEGO — A Navy officer has apologized to Rep. Patricia Schroeder, D-Colo., for a skit that included sexual references to her.

Cmdr. Robert H. Clement, who lost command of a fighter squadron over the incident, met Thursday with Schroeder for five minutes, said Schroeder aide Andrea Camp.

"He apologized for what happened and explained his side of the

story," Camp said.

Clement, who said he was vacationing when the skit was planned and returned only to see it on stage, was among five officers at Miramar Naval Air Station who were relieved of command after the June 18 show.

Firefighters hustle to keep wildfires from Ore. homes

ROGUE RIVER, Ore. — Firefighters in Oregon breathed easier Friday as they reinforced fire lines around two blazes that have destroyed seven houses and burned across more than 40,000 acres of southern Oregon timber land.

But in central Idaho, National Guardsmen were called in to support firefighters battling a wildfire above the rugged Salmon River canyon. Winds gusting to 40 mph were

predicted.

Thousands of firefighters battled blazes elsewhere in the West. In the past week fires have onsumed

more than 384,000 acres in California, Colorado, Oregon, Idaho, Washington, Nevada and Utah.

Weinberger's Iran-Contra trial is delayed until Jan. 5

WASHINGTON — A federal judge Friday put off Caspar Weinberger's Iran-Contra trial until Jan. 5 — a two-month delay — and will give the former secretary of defense unusually quick access to the previous statements of government witnesses.

The huge volume of paperwork requires abandoning the tentative Nov. 2 trial date, said U.S. District Judge Thomas Hogan.

CLARIFICATION.

Portsmouth Health Department physicians who tested blood from people in the city's Washington Park area described lead levels in 10 children as "mildly elevated," containing up to 15 micrograms per deciliter of blood. That level is below the A "border zone" for medical emergency set by the Centers for: Disease Control. Stories in the July 31, Aug. 1 and Aug. 7 editions erroneously reported that the Health Department described the levels as "moderately high."

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City of Portsmouth, Wirginia

Pepartment of Public Acalth P. G. Vox 1454 Portsmouth, Virginia 23705-1454

Established 1752

(884) 393-8585

August 19, 1992

Dear Citizens:

Enclosed, please find a fact sheet on Abex related blood lead tests.

The numbers included on the fact sheet are based on test results received by Portsmouth Health Department from the State Consolidated Laboratories in Richmond, through August 11, 1992.

I hope this fact sheet will answer some of your questions regarding the blood lead screenings offered to current and former residents in the area of the Abex Superfund Site.

Very truly yours,

Venita Newby-Qwens, M.D., M.P.H.

Health Director

VNO:GC:gc

Enclosure





Fact Sheet

Abex Related Blood Lead Tests

How many tests were done?

540

How many reports are in?

344

How many tests were elevated?

16

How elevated were the tests?

Mildly elevated

What does mildly elevated mean?

This means that the elevated levels fell between 10 - 15 and no medical treatment is needed.

Will anything be done for those with mildly elevated lead levels?

Each child will be given an appointment to be seen in the Pediatric Clinic of Portsmouth Health Department.

Why is the clinic appointment needed?

To talk about possible lead sources and preventive measures.

To talk about food sources of iron and calcium that can help keep blood lead levels from going higher.

To receive an appointment for a follow-up lead test in 3 months.

To be informed of referrals to Environmental Services and Public Utilities for inspection of housing units to detect lead sources. (water, paint, etc.)



PLANNING MEETING FOR UPCOMING PUBLIC MEETING ON ABEX SUPERFUND SITE (8/26/92)

AUGUST 21, 1992 10:00 A.M.

AGENDA

I. LOGISTICS

HOW DO WE WANT TO SET UP THE COUNCIL CHAMBER? Recommendation: Panel format

Long table w/microphones for each

agency representative Sergeant at Arms at desk Podium for moderator

City Council and staff seated in section furtherest away from entrance

to Council Chambrs

Name plates for each person on panel

Do we need overhead projector? VCR? flip charts?

SIGN IN SHEET/HANDOUTS

Two or three tables at entrance to Council Chambers where attendees may sign name and address and pick up any handouts. Note that for people to write questions

- II. AGENDA FOR 8/26/92 MEETING
 Working copy attached
 Suggested key points for various speakers/presenters
 attached
- III. ROLE PLAY SEVERAL QUESTION SCENARIOS Key questions attached.
- Since many questions will go unanswered because of status of ROD. City council could take action at end of meeting to select residents advisory committee from list of those in attendance. Group could be empowered to get facts out to other residents regularly, based on direct communication w/agencies both meetings and mailings. Relation ships could be established and hopefully some trust.



technical

DRAFT AGENDA FOR AUGUST 26TH PUBLIC MEETING REGARDING ABEX SUPERFUND SITE 7:00 P.M., CITY COUNCIL CHAMBERS

1 2 2 3 3 3

MODERATOR, ?- JOHNNY MORRISON (CIRCUIT COURT JUDGE) Charles Church ?-L.-LOUISE LUCAS (STATE SENATOR) WELCOME.....MAYOR GLORIA O. WEBB Include statement of purpose in Mayor's welcome remarks - INVOCATION....? INTRODUCTIONS......MODERATOR (need names of representatives who will be here. In addition to EPA, DWM, we will have PRHA, Health Dept, City Officials, etc.) BRIEF DEFINITION AND STATEMENT ON RECORD OF DECISION......EPA REPRESENTATIVE REPORT ON BLOOD LEAD TESTING......DR. NEWBY-OWENS ? AND ATSDR REPRESENTATIVE GROUND RULES.....MODERATOR - No repeat questions - Anyone wishing to write their questions instead of presenting them, may give questions to "ushers" (C.J., Carol, Debbie) - Paper provided at sign in - Try to limit time to present each question as there will probably be many - Moderator will repeat the question in the microphone for everyone to hear prior to panel response - Questions will be fielded in order of (a) Current residents of Washington Park (b) Homeowners in Superfund radius (c) Others QUESTIONS AND ANSWERS......MODERATOR (Repeat question from podium so everyone can hear question.) Order of questions: Current Residents of Washington Park I. Homeowners II. III. Others Recommend that 12-15 residents in Superfund radius be randomly selected from sign-in sheet. | Empower residents to get word out to other residents. This group will have regular correspondence and meetings with agency representatives to be kept informed. They will also be responsible for notifying agency reps if there is a rumor, question, or concern circulating that needs to be dispelled.

ABEX CORPORATION SITE

Portsmouth, Virginia

BACKGROUND: See attached Proposed Remedial Action Plan

current status: ROD for OU 1 (lead in soil) is being prepared for approval this month. DOJ will now request an extension on earlier EPA pledge to federal judge for September 11 ROD issuance. Judge is considering TRO request from site residents filing class action against EPA, Abex, VA-DWM.

ISSUES:

<u>Communications</u> - Residents feel that they never had adequate information about the existence and status of the site, either as tenants or owners prior to this year.

- Several meetings held this spring by EPA were labeled as being "divisive" because owners requested separate meetings from tenants. A city-sponsored August 26 meeting drew both tenants and owners and expression of continuing frustration.
- Racial and economic issues are also on the table as are claims that an all-black site has been badly handled.
- <u>Public Health</u> The risk to residents is not clearly understood as rumors and unfounded speculation about lead in soil and its effects are spread through unofficial sources.
- Testing by the city is still suspect based on earlier contacts and fears of mishandled data.
- When ATSDR's senior medical officer corroborated all EPA's earlier health information on August 26, residents expressed further mistrust of "government agents".
- Operations Residents want a ROD that calls for permanent relocation; owners want a buyout with temporary housing allowance for resettlement.
- Residents don't trust EPA's oversight of Abex in handling on-site health and safety issues during remediation.
- Owners fear for the structural integrity of their property if excavation takes place near or below foundations.

KEY OUESTIONS

- Will I be relocated when the remedial activity begins? 1.
- 2. Will I be compensated in any way for stress and disruption these past few months?
- 3. Will the City purchase my property if Abex does not acquire it?

*4 What short term or long term health threat is there? Comementi in put

- Is it safe for my 4 year old to play outside?
- (6) How dangerous is it living in this area?
 - When can we expect a stress management team to come in 7. to assist our families?
 - 8. We've heard so many times that there will be a \$16 mm or more clean up. Why don't you just acquire my home? It seems homes could be acquired and deed restrictions could be placed to preclude human contamination for a lot less than \$16 mm.
 - 9. Who do we sue?
- (10)Is my home safe to live in?
 - 11. What will happen to my home if the soil lead levels in my crawl space were unacceptable?
 - 12. Will the remedial activity dig up soil in the entire 700' radius?
 - 13. Why don't you just demolish Washington Park and relocate everyone, and then use the property for industrial purposes? It seems that that would be a quicker remedy and would make more people happy. Phone would make more people happy.
- 米 (14) Why are you testing for lead in/my water and paint now?
 - Will there be another public meeting since all of our questions cannot be answered/tonight?

CY ENCHOROMERAL SOCS

rez CLEA

...

9/4/92

leanse

RECORD OF DECISION

ABEX CORPORATION SUPERFUND SITE PORTSMOUTH, VIRGINIA

PREPARED BY
THE U.S. ENVIRONMENTAL PROTECTION AGENCY
AND
THE VIRGINIA DEPARTMENT OF WASTE
MANAGEMENT

SEPTEMBER 1992

3 Huby



Department of Waste Management 101 North 14th Street Richmond, Virginia .. 23219

Fax Cover . Sheet

Date: 7-8-91

Company Name	EPA .
Contact Name:	DREW LAUSCH 1/26
Fax Number:	215 - 597 - 9890

Sender: S MINALKO						
Description:	ABEX - HEALTH DEPT. SCREENING SURVEY					

en to	Number of pages: 4 also, easier to kin Homes	Lt Leane Nurse
- ILLessed	If there are any problems with this transmission, please call:	*
	at (804) 225~3270° immediately	Re(1) 7/9/9/

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DEPARTMENT OF PUBLIC HEALTH

CITY OF PORTSMOUTH, VIRGIN



\$00 CRAWFORD PARKWAY P.O. BOX 1454 PORTSMOUTH, VA 23705

(804) 393-8585

IN COOPERATION WITH THE STATE DEPARTMENT OF HEALTH

March 25, 1991

Glen Metzler, Environmental Toxicologist Superfund Remedial Program Department of Waste Management 101 N. 14th Street, 11th Floor Richmond, Virginia 23219

Dear Mr. Metzler:

I am responding to your letter written January 28, 1991 regarding the ABEX foundry in Portsmouth and the high levels of lead found in the soil surrounding that area. You identified a block, bounded by Effingham, Henry, Green and Lincoln Streets, that had high soil lead levels and requested that we do screening for elevated blood levels in this area.

Attached is the results of the screening that was done on February 15, 1991. If you desire further information, contact Shirley Lacey, R.N., Nurse Manager. Phone: 393-8585, extension 211.

Very truly yours,

Venita Newby-Ovens, M.D., M.P.H.

Health Director

VNO:SL:rz

Attachment

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Appendix B: Glossary of Superfund Terms

Appendix C: Letters of Comment on the Proposed Plan

LEAD SCREENING FOR ELEVATED BLOOD LEVELS
One Block bounded by Effingham, Henry, Green, and Lincoln Streets
DATE: FEBRUARY 15, 1991

Portsmouth Health Department received a request from Glen Metzler, Department of Waste Management, to screen the children who live/or play in a segment of Portsmouth (one block, bounded by Effingham, Henry, Green, and Lincoln Streets) for elevated blood lead levels.

A Sanitarian and two Registered Nurses coordinated the program and made door-to-door visits. A letter was developed informing the residents about the lead screening program and how the children could receive the ZNP screening test at the Portsmouth Health Department. A visit was made to the twenty four (24) homes in this area on February 15, 1991. The program was explained to the residents and a letter was left at the houses with no one at home. This block appeared to have an older population and most of the children identified were grandchildren or great grandchildren who only come to visit and play in this area. Of the ten (10) houses with an adult at home, two (2) were identified as having a private physician that the children would see.

A time frame of one (1) month was given to complete the testing-February 15, 1991 - March 15, 1991). Three (3) children came in for the ZNP screening test. The results were within normal limits (ZNP-23, ZNP-16, ZNP-25).

Houses	Talked with	No one Home-
# in Area	Residents-	Letter Left
24	10	14

RECORD OF DECISION

ABEX CORPORATION SITE

DECLARATION

I. SITE NAME AND LOCATION

Abex Corporation Site Portsmouth, Virginia Operable Unit One

II. STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) presents the final remedial action selected for Operable Unit One of the Abex Corporation Site (Site), located in Portsmouth, Virginia. This remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. This decision document explains the factual and legal basis for selecting the remedial action and is based on the Administrative Record for this Site. An index of documents for the Administrative Record is included in Appendix A.

The Commonwealth of Virginia concurs on the selected remedy.

III. ASSESSMENT OF THE SITE

Pursuant to duly delegated authority, I hereby determine, pursuant to Section 106 of CERCLA, 42 U.S.C. Section 9606, that actual or threatened releases of hazardous substances from this Site, as discussed in Section VI (Summary of Site Risks) of this ROD, if not addressed by implementing the remedial action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

IV. DESCRIPTION OF THE SELECTED REMEDY

The EPA, in consultation with VDWM, has selected the selection of the following remedial action for the Abex Corporation Site. This ROD addresses the first of two operable units for the Site. This operable unit (OU1) addresses contaminated soil and waste material present within approximately a 700-foot radius of the Abex foundry facility. The former foundry buildings will also be addressed as part of OU1. The second operable unit (OU2) will further investigate ground water, offsite ecological impacts, and

	STREET & NUMBER	CHILDREN UP TO AGE 5- LIVE OR PLAY IN AREA	CHILDREN'S NAME	CHILDREN'S BIRTH DATE	PARENT'S NAME	MEDICAL PROVIDER
1	800 Effingham St.	(owner of house) Mr. & Mrs. Howell	Darryl Pattilo Grandchild	5/14/88	Lisa Pattilo	Clinic
1	812 Effingham St.		None			-NA-
1	818 Effingham St.					Letter Left
1	824 Effingham St.					Letter Left
7	15 Henry Street	(owner of house) Mrs. Lila Bailey	Raven Bailey Grandchild	Unknown 2 yrs. old		Private MD Name Unknown
l"	N	11 17	Terrell Andrews Great Grandchild	Unknown 1 yr. old		M I
*	Ħ	E7 * N	(Male) Andrews Great Grandchild	Unknown 3 mos. old		11
7	17 Henry Street					Letter Left
7	09 Henry Street		Nijah Nichols (ZNP-16)		Sharon Nichols	Letter Left
7	18 Henry Street				·	Letter Left
7	20 Henry Street		None			-NA-

the need for additional remediation of soil beyond the 700-foot radius. The selected remedial action for OU1 addresses the principal threat at the Site by excavating and treating the most highly contaminated soils and waste material and by demolishing the buildings associated with the former foundry operation. Treated material, soil containing low levels of contamination that do not require treatment, and building debris will be disposed of offsite in an approved Resource Conservation and Recovery Act (RCRA) landfill.

Response actions began at this Site in 1986 when EPA identified high lead concentrations in the Abex foundry waste within the Abex Lot and in soil of neighboring residential lots. Pursuant to a Consent Order signed with EPA in August of 1986, Abex excavated and removed contaminated soil at varying depths (generally 6 to 12 inches) from residential areas around the Abex Lot, primarly in portions of the Washington Park Housing Project, the Effingham Playground, and around the Seventh Street Homes.

Additinal high lead concentrations in soil of residential areas where identified in the Remedial Investigation and Feasibility Study (RI/FS) for OU1 completed in February of 1992. Pursuant to a Unilateral Consent Order issued by EPA in March of 1992, Abex excavated and removed additional contaminated soil to a depth of approximately twelve inches in portions of the Washington Park Housing Project and the Effingham Playground. Home owners in the two-block residential area south of the Effingham Playground have not allowed access to their properties to complete excavation and removal of surface soil contamination in that area. Residents expressed a desire to know the full extent of cleanup that would be required in this final remedial action before allowing a portion of the work on their properties to proceed.

The major components of the selected remedy include:

- Excavation of approximately 20,300 cubic yards of soils from residential properties and the Effingham Playground where lead concentrations exceed 500 mg/kg; excavation will extend to the depth of the water table (approximately three to six feet below the surface).
- Excavation of contaminated soil around the foundations and beneath homes and residential units; geotechnical investigations will be performed during the Remedial Design to determine the appropriate measures to be taken during excavation to maintain the structural integrity of each home or residential unit; residents will be temporarily relocated while excavation is underway in the immediate vicinity of their home; sampling of the interior of homes will be performed before, during, and after excavation to ensure dust control measures have been effective.

ın	STREET & NUMBER	CHILDREN UP TO AGE 5- LIVE OR PLAY IN AREA	CHILDREN'S NAME	CHILDREN'S BIRTH DATE	PARENT'S NAME	MEDICAL PROVIDER
σ	1800 Green Street					No one home letter left
	1810 Green Street		None			-NA
	700 Lincoln Street					Letter Left
	706 Lincoln Street	(owner of house) Mrs. Clark	Latisha Clark Great Grandchild	2/2/87	Flora Lesha Grimes	Clinic
	708 Lincoln Street	•				Letter Left
A Z J	725 Lincoln Street	(owner of house) Missoui Scott	David D. Forrest Grandchild	12/20/88	George & Rita Forrest	Dr. Gregory
E E	729 Lincoln Street		Dion Harris (ZNP-25)			Letter Left
S D	716 Lincoln Street Duplex					Letter Left
(h 10	718 Lincoln Street					Letter Left
۲	728 Lincoln Street Duplex					Letter Left
	730 Lincoln Street					Letter Left
1.00 1	1807 Effingham St.		Vashed Burks (ZNP-23)		Mary L. Walker	Letter Left
oo 1	1801 Effingham St.		None			-NA-
J U L		·	<u> </u>			

Excavation of approximately 17,800 cubic yards of soil from non-residential properties including soil beneath areas currently covered with asphalt (e.g., the Abex and McCready Lots) where lead concentrations either exceed 500 mg/kg in the surface (0 - 12") or exceed 1000 mg/kg in the subsurface (> 12"); excavation of subsurface soil will extend to the depth of the water table.

- Backfill all excavated areas with clean fill; restore vegetated areas to the conditions existing prior to excavation to the extent practicable.
- Stabilization/solidification by mixing excavated soil and waste material that exhibit toxicity using the Toxic Characteristic Leaching Procedures (TCLP) with chemcials/reagents; mixing will be contained in above-ground equipment onsite to create a final product that encapsulates and immobilizes lead and other metals; specific chemicals to be used in the process will be determined in a treatability study during the Remedial Design phase of this project; treated material will be tested using TCLP to ensure it no longer exhibits toxic characteristics.
- Transportation and disposal of treated soils and waste material offsite in an approved Resource Conservation and Recovery Act (RCRA) Subtitle D landfill; contaminated soils that do not exhibit toxicity using TCLP may be disposed of in an approved RCRA Subtitle D landfill without treatment.
- Demolition of all structures associated with the foundry operations; debris exhibiting toxicity using TCLP will be decontaminated in accordance with current Land Disposal Restriction (LDR) requirements; debris will be disposed in approved RCRA landfill; decontamination of equipment stored by the current owner in contaminated structures may also be required.
- Air monitoring during onsite activity and implementations of dust control and other necessary abatement actions to prevent exposure of local residents to contamination during the remedial action.

V. STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable, and satisfies the statutory preference for

remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element. Because this remedy will not result in hazardous substances remaining onsite above health-based levels, the five-year review will not apply to this action.

Edwin B. Erickson Regional Administrator Region III Environmental Protection Agency

Date

Concurrence:

William L. Woodfin, Jr.
Executive Director
Commonwealth of Virginia
Department of Waste Management

Date

RECORD OF DECISION

ABEX CORPORATION SITE

DECISION SUMMARY

I. SITE NAME, LOCATION AND DESCRIPTION

The Abex Corporation Site (hereafter referred to as "the Site") is located in the eastern section of Portsmouth, Virginia, approximately 1.2 miles southwest of the confluence of the southern and eastern branches of the Elizabeth River (See Figure 1). The Site encompasses a several block area with numerous parcels of land (See Figure 2). The Site contains the former Abex brass and bronze foundry, which is comprised of five buildings (hereafter referred to as the Holland Property), and associated former waste sand disposal areas (hereafter referred to as the Abex Lot and the McCready Lot). Other areas within the approximate 700-foot Site radius that were found to have contamination associated, at least in part, with the former foundry operation will be addressed in this remedial action.

The location of the Site properties are described as follows: the Holland Property is located in the block bounded on the east by Seventh Steet, on the south by Randolph Street, on the west by Green Street, and on the north by Brighton Street; the Abex Lot is located immediately north of the Holland Property; the Washington Park Housing Project is located both northeast of the Holland Property and north of the Abex Lot; the Effingham Playground is located west of the of the Holland Property; private residential properties (hereafter referred to as the Effingham residential area) are located south of the playground and southwest of the Holland Property; a drug rehabilitation center and a small shopping center are located south of the Holland Property; the McCready Lot is located southeast of the Holland property at the northwest intersection of Randolph and Seventh Streets; several row homes are located north of the McCready Lot and immediately east of the Holland Property; and several vacant lots are located east of Seventh Street. The Washington Park Housing Project, the Effingham Playground, and the Effingham residential area are currently zoned for residential use by the City of Portsmouth. The remaining properties are zoned for commercial and light industrial use.

The RI for OU1 identified lead as the primary contaminant of concern at the Site. Lead was detected in soils on the Holland Property, under the asphalt-capped Abex and McCready Lots, and in surrounding residential and non-residential areas at levels that pose an actual or potential threat to human health and the environment.

→215

FIGURE 1

**

FIGURE 2

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A brass and bronze foundry operated at the Site from 1928 to 1978. The foundry melted used railroad car journal bearings which were over 80% bronze and poured the molten material into sand molds to cast new railroad car bearings. These sand casts eventually became laden with heavy metals, such as lead, antimony, copper, tin, and zinc. During operation, the foundry produced stack emissions of fine particulate material associated with facility processes.

The National Bearing Metal Corporation began operation of the foundry at the Site in May of 1927 and continued until December of 1944. American Brake Shoe Company bought the foundry in December of 1944 and operated it until May of 1966. At that time, Abex purchased the facility and operated the foundry until it closed in 1978. During Abex's operation of the foundry, waste sand was disposed in an approximately one-acre area immediately north of the foundry building. When the foundry operation closed, Abex graded this disposal area, which is referred to as the Abex Lot, and secured it with a seven foot cyclone fence. Pneumo Abex Corporation, the successor of Abex Corporation, still owns most of Abex Lot. In 1977, Runnymede Corporation, a real estate investment company, purchased a small parcel of the Abex Lot from Abex. Runnymede still owns this parcel.

In 1984, Holland Investment and Manufacturing Corporation purchased the portion of the Site that contains the foundry building and several smaller associated structures. Holland Investment and Manufacturing Corporation allowed John C. Holland Enterprises, Inc., which is a trash hauling business, to conduct vehicle service and maintenance on the property.

After closure of the foundry, many of the parcels located nearby have changed ownership and have been redeveloped for other uses. These areas include the Washington Park Housing Project, the drup rehabilitation center, the Effingham Playground, and numerous private residences

In January 1983, an EPA contractor visited the Site to observe the current conditions. No sampling was conducted this preliminary assessment. EPA contractors returned to the site in June of 1984 to perform a site inspection and collect several samples from the Abex Lot. Sample results detected high levels of lead (up to 10,400 mg/kg), zinc, copper, tin, and antimony. A background sample collected east of the site also had a lead concentration of 2,750 mg/kg.

In April of 1996, EPA collected additional soil samples from the Washington Park Housing Project and other properties adjoining the Abex Site. The analytical results found lead concentrations of up to 12,800 mg/kg in the samples collected. Pursuant to the authority granted in Section 106 of CERCLA, 42 U.S.C. §9606, EPA

entered into a Consent Order with Abex in August of 1986 for excavation and removal of contaminated soil at varying depths (generally 6 to 12 inches) from certain residential areas around the Abex Lot. The areas to be addressed included portions of the Washington Park Housing Project, the Effingham Playground, and the Seventh Street row homes. All excavated areas were filled with clean soil and revegetated. Abex also paved and fenced the Abex Lot and the McCready Lot.

The analytical data collected at the Site was used to evaluate the relative hazards posed by the Abex site in EPA's Hazard Ranking System. EPA uses the HRS to calculate a score for hazardous waste sites based upon the presence of potential and observed hazards. If the final HRS score exceeds 28.5, the site is placed on the National Priorities List (NPL), making it eligible to receive Superfund moniew for cleanup. An HRS score of 36.53 was calculated for the Abex Site. As a result, EPA proposed the Abex Site for inclusion on the NPL on June 24, 1988 (53 FR 23988). The Site was placed on the list on August 28, 1990 (55 FR 35502).

On June 2, 1989, pursuant to Section 122 of CERCLA, 42 U.S.C. § _____), EPA issued Special Notice Letters to Abex Corporation and the Holland Investment and Manufacturing Corporation (hereafter referred to as "Holland Investment") offering them the opportunity to perform the RI/FS for the Site. On October 10, 1989, VDWM, serving as the lead agency, entered into an Administrative Order of Consent with Abex pursuant to Section 106 of CERCLA, 42 U.S.C. §9606. Under the terms of the Order, Abex agreed to conduct the RI/FS at the Site to determine the nature and extent of additional Site contamination and to identify remedial alternatives for Siterelated contamination of concern.

Based on the findings of the final RI/FS Report dated February 1992, EPA determined that contaminated surface soil exceeding 500 mg/kg lead within the Effingham residential area, and at a few additional locations in the Washington Park Housing Project and the Effingham Playground present a short-term threat to human health. As a result, pursuant to Section 106 of CERCLA, 42 U.S.C. §9606, EPA issued a Unilateral Administrative Order on March 30, 1992 to Abex requiring Abex to remove such soils from the Site. Abex agreed to perform the removal action and, to date, has excavated and removed additional contaminated surface soil in the Washington Park Housing Project and the Effingham Playground. Removal of soil in the Effingham residential area has been temporarily suspended at the request of the impacted residents pending issuance of this document.

III. HIGHLIGHTS OF COMMUNITY PARTICIPATION

EPA has several public participation requirement that are defined in Sections 113(k)(2)(B), 117, and 121(f)(1)(G) of CERCLA, 42 U.S.C. §§9613(k)(2)(B), 9617, and 9621(f)(1)(G), respectively.

The documents which EPA used to develop, evaluate, and select a remedial alternative for the Abex Site have been made available to the public in the Administrative Record maintained at the Portsmouth Public Library (Reference Section) and at the EPA, Region III, Philadelphia Office. The Administrative Record is required by Section 113(k)(1) of CERCLA, 42 U.S.C. §9613(K)(1).

The RI/FS Report and the Proposed Plan for the Abex Corporation Site were released to the public in April 1992. The Proposed Plan described remedial alternatives being considered by EPA and VDWM and identified EPA's preferred alternative at that time. The notice of the availability of the Proposed Plan and the Administrative Record was published in The Virginian-Pilot on April 28, 1992. This notice also invited the public to a meeting on May 7, 1992 to discuss the Proposed Plan with EPA and VDWM. The public was encouraged to review the Proposed Plan and the Administrative Record files and to submit comments on the proposed remedial alternatives to EPA and VDWM. The public comment period was initially scheduled to be open from April 29, 1992 through May 29, 1992. At the request of local citizens, EPA and VDWM extended the public comment period which then formally closed on July 10, 1992.

A public meeting was held on May 7, 1992, during the public comment period. At this meeting, representatives from VDWM and EPA answered questions about the Site and discussed the remedial alternatives under consideration, as well as the short-term removal action that was about to proceed. Approximately 30 people including residents from the impacted area, local government officials, a representative from Pneumo Abex, and VDWM and EPA representatives attended the public meeting.

EPA and representatives from MaeCorp, Abex's contractor implementing the removal action, visited homes in the Effingham residential area after the public meeting to secure access for the removal work. During these visits, EPA also provided additional explanations about the remedial actions presented in the Proposed Plan. After these visits, members of the Madison Ward Civic Leaque requested that EPA and VDWM meet with the Effingham residents to further discuss the impacts of the proposed removal and remedial actions and the health effects associated with lead contaminating on their properties.

Meetings were held with the Effingham residents on May 28, 1992 and June 9, 1992. During this period, community awareness and concern about the proposed cleanup activities were significantly heightened. EPA and VDWM also held a meeting on June 25, 1992 at the community center in the Washington Park Housing Project to provide an additional opportunity for impacted residents to gain information about the health effects of the lead contamination to discuss the proposed removal and remedial actions. In addition to meetings with the local residents, VDWM and EPA met with local officials on several occasions during this period.

Although the public comment period was closed, EPA held a fifth meeting with the local community at the request of the City The meeting was held on August 26, 1992. Representatives from the City of Portsmouth Health Department, the Agency for Toxic Substances and Disease Registry, VDWM, and EPA addressed questions from approximately 150 local residents about health effects of lead contamination and the proposed cleanup of the Site.

A response to the comments received during the public comment period is included in the Responsiveness Summary, which is part of this ROD. This decision document presents the selected remedial action for the Abex Corporation Site in Fortsmouth, Virginia, chosen in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the NCP. The decision for this Site is based on the Administrative Record. The index for the Administrative Record is included in Appendix A of the ROD. This decision is also based upon comments received by VDWM and EPA during the public comment period which are included in the Administrative Record.

IV. SCOPE AND ROLE OF RESPONSE ACTION

As with many Superfund sites, the problems at the Abex Corporation Site are complex. As a result, EPA and VDWM have organized the work into two operable units (OUs). These OUs are:

- OU1: Contamination in the soil and waste sands on the Holland Property, the Abex Lot, the McCready Lot and in the surrounding properties within an approximate 700-foot radius of the foundry facility
- Potential contamination of the shallow and deep OU2: aquifers and additional soil contamination that may exist beyond the approximate 700-foot radius being addressed in OU1.

The first OU, the subject of this ROD, addresses lead contamination in soil. The primary exposure pathway of concern at this Site is incidental ingestion of soil. Based on results of the EPA's Lead Uptake Biokinetic Model, children are exposed to an unacceptable health risk when lead concentrations in surface soil exceed 5,500 mg/kg. The purpose of this response is to protect human health and the environment by preventing current or future exposure to the contaminated soil.

As part of OU2, additional RI/FS activity will be performed to fully characterize the nature and extent of ground water This OU will also include an investigation of contamination. additional soil contamination at distances greater than 700 feet from the foundry facility, as well as offsite ecological impacts.

V. SUMMARY OF SITE CHARACTERISTICS

General Overview

The Abex Site is located in the urban environment of Portsmouth, Virginia, approximately one-half mile to the west of the south branch of the Elizabeth River. The Site is relatively flat and is approximately 5 to 10 feet above mean sea level. A review of aerial photographs from 1937 reveals extensive surficial drainage surrounding the Site. However, by 1964, drainage was largely confined to Gander Creek, a channelized canal flowing from east to west just north of the Abex Lot. At the present, most drainage occurs through a network of catch basins and storm sewers.

The Abex Site is located in one of the oldest sections of the City of Portsmouth. The area was incorporated into the City's limits in 1784. The U.S. Naval Shipyard, located less than a mile to the southeast, commenced operation in 1767 and presently encompasses about 800 acres. The Portsmouth area experienced rapid growth during World Wars I and II when the Navy expanded its shipyard, hospitals, and docking facilities.

The population in the one-mile radius surrounding the Site varied during the period when the foundry was operating. From 1930 to 1950, the population in this area grew from 27,470 to 30,930. Subsequent to 1950, the population declined to 27,575 in 1960; 19,940 in 1970; and 15,117 in 1980.

The Elizabeth River Basin, which surrounds Norfolk, Portsmouth, and Chesapeake, drains approximately 300 square miles. The river basin is heavily industrialized and receives wastewater discharges from U.S. Naval facilities, heavy industry, major municipal treatment facilities, urban runoff, and boating and docking facilities. Current water quality problems include high nutrient levels, bacteriological contamination, creosote leachates, periodic oil spills, occasional sewage overflow, and elevated heavy metal and chlorhated hydrocarbon concentrations in bottom A sediments.

Annual rainfall in the Site area is between 45 and 50 inches. Wind direction for the Portsmouth and the surrounding area is predominantly north-northeast and south-southwest.

Generally interpreted, the site and the surrounding area within the 700-foot study radius are underlain by a veneer of undistinguished fill material, sand, and fine grained sediments. Groundwater movement beneath the study area is largely confined to the sand-dominated strata.

Portsmouth lies in the Coastal Plain physiographic province and is underlain by a thick sequence of unconsolidated sediments consisting primarily of sand, gravel, silt, clay and some shell material. These sediments thicken from west to east in a wedge-

like form and are immediately underlain by igneous and metamorphic bedrock. The depositional history of the unconsolidated sediments is complex and has resulted in what is generally an alternating sequence of sand and fine grain sediment layers.

In the vicinity of Portsmouth, large-scale groundwater movement occurs only within the confined aquifer formations. Except for the uppermost aquifer, the Columbia Group, each aquifer is separated from the underlying aquifer by a confining unit. Most of the ground water used in the area for potable purposes is withdrawn from the confined aquifers (Siudyla, et al, 1981). At the present time, very little ground water withdrawn from the unconfined Columbia Group aquifer is utilized for potable purposes (Siudyla, et at, 1981).

Summary of RI Findings

The primary focus of the RI was to evaluate possible lead contamination in soil on and around the foundry property. In addition, the RI included a limited investigation of ground water, surface water, and sediments potentially impacted by the Site.

Soil contamination was investigated by sampling and testing over 1,000 samples for lead content. Of these samples, over 550 were also analyzed for fourteen other metals. Soil samples were collected either using a hand auger or through soil borings. A total of 206 locations were sampled using the hand auger. Samples locations were established primarily through use of a 100-foot grid system over the 700-foot radius Site area. At each location, a minimum of two samples were collected - one at the 0 to 0.5 foot depth and a second at the 1.5 to 2 foot depth. Additional samples were collected to a maximum depth of 3 to 3.5 feet were elevated lead concentrations were observed.

Soil borings ranging in depth from 11 to 26 feet were performed at 34 locations primarily in the Abex Lot and on and around the Holland Property. A minimum of five samples were collected at each location to characterize the stratigraphy of the water table aquifer. The number of samples analyzed varied depending on the location and the conditions encountered. Most analyses were for lead or for the primary pollutant list of fourteen metals.

Sweep samples for dust were also collected from the interior of the foundry building and from the attics of two Seventh Street row homes. A number of the dust and soil samples collected on the Holland Property and in the Abex Lot were analyzed for the complete list of priority pollutants

The major finding of the RI at the Site was that both surface and subsurface soils are contaminated with lead in residential and non-residential areas. Soil ("floor dirt") and dust throughout the interior of the foundry building on the Holland Property was found

to contain lead levels of up to 100,000 mg/kg. Outdoor soil on the Holland Property contain lead levels of up to 58,000 mg/kg within the top two feet. Waste sand is buried in the Abex Lot to a depth of at least six feet, with lead concentrations ranging up 24,000 mg/kg. Lead levels of up to 4,750 mg/kg occur within the top two feet of soil under asphalt within the McCready Lot.

Surrounding areas containing lead-contaminated soil associated with the Site include portions of the Washington Park Housing Project, the Effingham Playground, the Effingham residential area, the Seventh Street row homes, the drug rehabilitation center property, and vacant lots east of Seventh Street.

Lead levels up to 46,500 mg/kg were detected in soil at depths of one to four feet in portions of the Washington Park Housing Project. Subsurface soil in the Effingham Playground contain Dlead levels up to 5,000 mg/kg. Contaminated surface soil (generally 6 to 12 inches) in both Washington Park and the Effingham Playground were previously excavated and removed by Abex pursuant to a Consent 🚟 Order signed with EPA in August 1986. A few additional areas with surface soil contamination above 500 mg/kg were identified during the OU1 investigation and have been excavated and removed by Abex pursuant to a Unilateral Order issued by EPA in March of 1992.

Surface and subsurface soil within the Effingham residential area -have lead concentrations up to 8,000 mg/kg. Additional sampling performed as part of the removal action detected elevated levels of lead ranging up to 3,739 mg/kg in crawl spaces beneath eleven of sixteen homes sampled in this area.

Soil in lots associated with the Seventh Street row homes contain lead at levels up to 7,000 mg/kg at 0 to 2 feet in depth. A Surface soil contamination in the row home lots was previously address by Abex under the 1986 Consent Order. Attics of two $\mathscr{R}^{ackprime}$ Seventh Street homes contain dust with lead levels of up to 7,030 mq/kg.

Surface soil within the drug rehabiliation center property contain lead at levels of up to 9,300 mg/kg. Lead has also been \wedge detected in surface soil of the vacant lots west of Seventh Street at levels up to 1,200 mg/kg, with subsurface soils containing lead of up to 6,000 mg/kg.

A limited hydrogeologic investigation was undertaken at the Site to assess the impacts of contamination on the surficial aquifer. Four monitor wells, three piezometers, and numerous soil / borings were installed to gain an understanding of the materials and contaminant distribution in the upper aquifer. Two monitoring wells were located in the Abex Lot; one well was located in the McCready Lot; and one well was located immediately north of the Seventh Street row homes. The wells were drilled to approximately fourteen feet below ground surface; the piezometers were drilled to fifteen feet below ground surface. Groundwater was encountered







from three to six feet below surface across the site.

Groundwater data from the Abex property indicates that lead has entered the surficial groundwater in the source area either through migration or through past disposal practices. Elevated concentrations of lead were present in filtered samples collected in one of the monitoring wells in the Abex Lot (MW-1). Lead levels of 31 micrograms per liter (ug/1) and 24 ug/1 were detected during two separate sampling events. EPA recommends a cleanup level of 15 ug/1 for lead in ground water. Filtered samples collected in the other three wells did not exhibit elevated concentrations of lead. The surficial aquifer and the deeper aquifer are not currently used for drinking water supplies in the area of the Site. Further investigation of contamination in the confined aquifer and the hydraulic relationship between the surface and deeper aquifer will be undertaken as part of OU2.

Surface water and sediment samples were collected from four catch basins within the 700-foot study area. Elevated metal concentrations were observed in both surface water and sediment samples. The significance of the metals concentrations detected and the relationship of these concentrations to the Abex Site is unclear. Further investigation and analysis of surface water and sediment conditions at the Site, including potential ecological impacts, will be performed as part of OU2.

VI. SUMMARY OF SITE RISKS

An assessment of the potential risks posed to human health and the environment was completed in accordance with the NCP. Specifically, the baseline risk assessment provides the basis for taking action and indicates the exposure pathways that need to be addressed by the remedial action. It identifies the risks that could exist if no action were taken at the Site. The baseline risk assessment for the Abex Site was completed in February 1992 and is part of the Administrative Record.

In general, a baseline risk assessment is performed in four steps: (1) data collection and evaluation, (2) the exposure assessment, (3) the toxicity assessment, and (4) risk characterization. This section of the ROD will summarize the findings during each of these steps of the baseline risk assessment for the Abex Site.

IDENTIFICATION OF CONTAMINANTS OF CONCERN

Lead is the contaminant of principal concern at this Site due to its widespread presence in surface and subsurface soil in the residential areas as well as the foundry properties and its known health effects. Other contaminants present at levels of concern in residential areas include antimony, nickel, tin, copper, and zinc. These are contaminants known to be associated with the waste sands

from the foundry operation. Other contaminants present at levels of concern on the Holland Property or in the Abex and McCready Lots include cadmium, chromium, silver, and polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs).

The two media of primary concern at this Site are soil and ground water. An overview of the extent of contamination in the soil at the Site is presented in Table 1. The data are presented for the three residential areas - the Washington Park Housing Project, the Effingham residential area, and the Seventh Street row homes; for the Effingham Playground; for the foundry properties including the Holland Property, the Abex Lot, and the McCready Lot; and for the vacant lots. The number of samples collected (n), the mean concentrations, and the upper 97.5 percentile confidence limit concentrations are presented in Table 1 for both surface soil (0 - 12") and subsurface soil (> 12") data.

Since lead is relatively immobile in the environment, the ground water investigation in the OU1 RI was limited to a four wells in the surficial aquifer. Ground water in the surficial aquifer was found to exceed the EPA's recommended cleanup level for lead in one well which was located in the Abex Lot. The surficial aquifer and the deeper confined aquifer are not currently used for drinking water supply. Further investigation of potential ground water contamination will be performed as part of the OU-2 investigation to assess potential future risk and the need for possible remediation. The discussion of site risks presented below will focus on contamination in the soil media.

TABLE 1 - EXTENT OF SOIL CONTAMINATION AT THE ABEX SITE								
AREA:		SURFACE SOIL			SUBSURFACE SOIL			
CONTAMI- NANT	n	MEAN (mg/kg)	97.5th % UCL (mg/kg)	n	MEAN (mg/kg)	97.5th % UCL (mg/kg)		
Washington I	Washington Park Housing Project:							
Lead	135	260	289					
Antimony	6	7	10					
Copper	6	311	565					
Nickel	6	7	13					
Tin	6	55	89					
Zinc	6	315	560					
Effingham Re	sident:	ial Area:						
Lead	48	1302	1688					

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TABLE 1 - EXTENT OF SOIL CONTAMINATION AT THE ABEX SITE

AREA:	SURFACE S	OIP	SUBSURFACE	ROIL	
CANTAULY NANT	25	8	10		
Copper	25	546	736		
Nickel	25	16	23		
Tin	25	152	224		
Zinc	25	896	1175		
Seventh Stre	et Row	Homes:			
Lead	0	DИ	ИО		
Antimony	0	ND	ND_		
Copper	0	ND	ND		
Nickel	, o	ND	ND		
Tin	0	ND	ND		
Zinc	0	ND	ND		
Effingham Pl	aygroui	nd:			
Lead	36	267	326		
Antimony	5	6	6		
Copper	5	407	1200		
Nickel	5	6	12		
Tin	5	63	132		
Zinc	5	381	754		
Holland Prop	erty/Al	ex Lot/Mc	Cready Lo	ot:	
Lead	41	33000	46800		
Antimony	33	590	928		
Cadmium	33	15	21		
Chromium	33	185	256		
Copper	33	54000	90400		
Nickel	33	255	397		
Silver	33	18	26		
Tin	33	2872	4261		
Zinc	33	8400	11800		

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TABLE 1	- EXTENT	OF SOIL	CONTAMINA	ATION AT THE ABEX SITE			
ADEA:	SURFACE SOIL			SUBSURFACE SOIL			
90 NIÀNI-	340	29	32				
Total PCBs	14	5	12				
Vacant Lots/	Drug Re	habilitat	ion Cente	er:			
Lead	86	609					
Antimony	22	_ 7					
Copper	22	619					
Nickel	22	10					
Tin	22	100					
Zinc	22	549					

HUMAN HEALTH EXPOSURE ASSESSMENT

The purpose of the exposure assessment in the baseline risk assessment is to determine exposure pathways that exist at a site and to quantify the exposure associated with each pathway. An exposure pathway exists if there are (1) contaminants at a site at levels of concern, (2) individuals that may come in contact with those contaminants, and (3) mechanisms by which contamination can enter the body.

The potentially exposed populations for OU1 consist principally of residents (children and adults) within approximately 700 feet of the foundry who are exposed to soil containing the contaminate of concern discussed above. The risk assessment also considered the potential exposure to adults working in the former foundry building, although this type of exposure is not presently occurring.

Actions at Superfund sites should be based on an estimate of the reasonable maximum exposure expected to occur under both the current and future land-use conditions. The resonable maximum exposure is defined as the highest exposure that is reasonably expected to occur at a site. The risk assessment for the Abex Site was based on the assumption that current and future land use in the area are not expected to change significantly.

The current land use at the Site is a mixture of residential and commercial/light-industrial. The Washingontom Park Housing Project, the Effingham residential area, the Seventh Street row

homes, and the Effingham Playground are currently zoned for residential use (Figure 3). The Abex Lot, Holland Property, and McCready Lot, the drug rehabiliation center, and the vacant lots are zoned for use as commercial/light-industrial purposes. Future use is expected to remain the same for the residential properties. The Holland Property, the Abex Lot, and the McCready Lot are expected to be used for commercial or light industrial purposes in the future. The drug rehabilitation center is expected to continue operation at its current location. The properties with the greatest uncertainty as to their future use are the vacant lots east of Seventh Street. The City of Portsmouth had originally planned a 60-acre PortCentre Business Park in this area, however, a GSA project which was the cornerstone of this development was awarded to another city. The City of Portsmouth is currently considering other options for this property including construction of a new high school.

Routes of exposure considered in the risk assessment include soil ingestion dermal contact, food ingestion, dust inhalation, inhalation of vapors. These pathways are described briefly below:

Soil ingestion. Ingestion of soil and dust, usually inadvertent ingestion and probably arising mostly from the soil being transferred from hand to mouth

Dermal contact Dermal contact with soil and dust

Food ingestion Ingestion of locally grown foods not thoroughly washed to remove contaminated soil

Dust inhalation No industrial dusts are currently being generated through active operations, nor are any expected to be generated in future; dust may come from disturbed contaminated soil in the area

Inhalation of vapors Inhalation of vapors from ground water and acetone in soil; route of exposure was found to be negligible

To quantitatively evaluate the exposure associated with pathways identified at the Site, assumptions were made concerning the reasonable maximum exposure for an individual living in the impacted area. Table 2 presents the activity pattern for exposed residents and the assumptions made as part of the risk assessment. This table was designed to reflect potential activities for a resident that would result in relatively high exposure to the contaminants of concern in the soil. Different activities were assigned reasonable average weekly times. All activities were assumed to take place for 350 days per year, and exposure duration

was assumed to be for a maximum of 30 years during a lifetime (this only affects the maximum estimate of cancer risk).

ACTIVITY	HOURS/WEEK (By Age Category)						
	0-1	1-4	4-7	7-11	11-15	15-18	18-70
At home indoors	130	130	131	102	102	102	131
At home outdoors	35	35	33	33	33	33	33
Foundry site	0	0	1	1	1	1	1
At school off-site				29	29	29	
Activitis off-site *	, 3	3		3	3	3	3

As part of the process to _mantify exposure, standard assumtions are made concerning factors such as the intake rate for soil ingestion, the ability of soil to adhere to skin, inhalation and consumption rates, the average lifetime, and maximum periods of exposure. Table 3 summarizes the exposure factors used in the risk assessment for the Abex Site.

The final consideration in quantifying exposure is the concentration of the contaminant of concern to be used in the calculation. The risk assessment for the Site used data from soil samples collected in the top six inches to caluclated exposure concentrations. Surface soil data was used since residents are exposed to these soils at a much greater frequency than subsurface soil. The data for each area of the Site as presented in Table 1 were averaged. The upper 97.5th percentile confidence limit was calculated for each area and these concentrations were used to quanitify individual exposure.

HUMAN HEALTH TOXICITY ASSESSMENT

The purpose of the toxicity assessment is to weigh available evidence regarding the potential for particular contaminants to cause adverse effects in exposed individual. Where possible, the toxicity assessment provides an estimate of the relationship between the extent of exposure to a contaminant and the increased likelihood and/or severity of adverse effects. The first step in the process is to determine whether exposure to the contaminant can cause an increase in the incidence of either a cancer-related

(carcinogenic) or noncancer-related (noncarcinogenic) adverse health effect. EPA gathers evidence from a variety of sources regarding these health effects including controlled epedimiologic investigations, clinical studies, and experimental animal studies.

The second step in the toxicity assessment is to quantitatively evaluate the health effects associated with the contaminant of concern on the exposed population. For contaminants that are known or suspected of causing cancer, Cancer Potency Factors (CPFs) have been developed by EPA's Carcinogenic Assessment Group in order to estimate the adverse health effect. Carcinogenic effects are measured as the additional risk of an individual contracting cancer as a result of exposure to potentially carcinogenic chemicals. CPFs are multiplied by the estimated exposure rates to provide an upper-bound estimate of the excess lifetime cancer risk associated with that exposure. The term "upper bound" reflects the conservative estimate of the risks and makes underestimation of the actual cancer risk highly unlikely. Table 4 lists the CPFs for the chemicals treated in this risk assessment.

For contaminants that are not known to cause cancer, reference doses (RfDs) have been developed by EPA for quantifying the potential for adverse health effects from exposure. RfDs are estimates of lifetime daily exposure levels for humans, including sensitive individuals, that are likely to be without an appreciable risk of adverse effects during a lifetime. Estimated intakes of chemicals from environmental media (e.g., the amount of a chemical ingested from contaminated soil) can be compared to the RfD. Table 5 lists values of RfD (for chronic exposure) and RfD (for subchronic exposure) where they are available. The toxicity profiles discussing primarily the noncarcinogenic effects of the contaminants of concern are included at the end of this section.

EPA does not currently recommend using the standard risk assessment methods described thus far in this Section for evaluating lead contamination. EPA recommended, and the Abex risk assessment used, the Uptake/Biodinetic (UBK) Model to assess the hazards associated with lead contamination at the Abex Site. The UBK Model estimates lead level in the bloodstream of children that can result from overall exposure to lead in the environment. The model considers possible exposure from air, diet, dringking water, soil/dust, and paint chips. Table 6 presents the standard assumptions used in the UBK model in the Abex risk assessment.

	TABLE 4 - CANCE	R POTENCY FACTORS					
CTTTV	POTENCY (KG-DAY/MG)						
CHEMICAL	ORAL	INHALATION	DERNAL				
Metals:							
Antimony							
Cadmium							
Chromium (VI)							
Copper							
Nickel							
Silver							
Tin							
Zinc							
PAHs:							
Acenaphthene							
Anthracene							
Benzo(a)- anthracene							
Benzo(a)- pyrene							
Benzo(b)- fluoranthene							
Benzo(ghi)- perylene							
Chrysene							
Dibenzo(,h)- anthracene							
Fluoranthene							
Fluorene							
Indeno(1,2,3- c,d)pyrene							
Naphthalene							
Phenanthrene			**				
Pyrene							
PCBs:							

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Table 5 - Reference Doses (RfDs) *

	Chronic			Subchronic			
	Oral	Inhalat- ion	Dermal	Oral	Inalat- ion	Dermal	
Antimony	0.0004		0.004	.0004		0.004	
Cadmium	0.001		0.007				
Chromium (VI)	0.005	5.7E-07	0.053	0.03	5.7E- 06	0.212	
Copper	0.037		2.226	.037		2.226	
Nickel	0.02		0.171	0.02		0.171	
Silver	0.003		0.063	0.003	}	0.063	

TABLE 6 - STANDARD ASSUMPTIONS FOR UBK MODEL

TOXICITY PROFILES FOR CONTAMINANTS OF CONCERN

Lead is a heavy metal that exists in one of three oxidation states, 0, +2, and +4. Primarily, lead is used in equipment where pliability and corrosion resistance are required, for example, in solder, paints and varnishes, storage batteries, and alloys. Occupational exposure to lead dust and fumes can occur during mining, refining, smelting, and welding. Children with pica (increased hand-to-mouth activity for paint chips or for soil) experience elevation in blood lead ranging from marginal to A sufficiently great to cause clinical illness. Some of these effects, particularly changes in the levels of certain blood enzymes and in aspects of children's neurobehavioral development, may occur at low blood lead levels. Fetal damage can occur in pregnant women exposed to high [what is considered high?] levels of Lead has been classified as a Group B2 probable human carcinogen. Oral exposure to lead salts, primarily phosphates and acetates, has caused kidney tumors in laboratory animals.

Copper is a reddish-brown metal which occurs free or in ores. It is insoluble in water but soluble in acid. Metallic copper is used as a conductor of electricity and in all gauges of wire for circuitry, coil, high conductivity tubes, etc. Copper is used in many important alloys, such as brass and bronze. Copper is alsoused in insecticides, fungicides, catalysts, analytical readents and paints. Acute exposure to copper salts may cause eye and skin irritation. Acute industrial exposure to copper may occur from fumes generated during welding copper-containing metals. This type of exposure may cause upper respiratory tract and stomach Chronic exposure to copper rarely occurs except in individuals with Wilson's disease. Wilson's disease is a genetic condition where abnormal amounts of copper are absorbed and stored Chronic exposure to copper may result in anemia. by the body. Copper is not classifiable as to human carcinogenicity. -

Antimony is a soft metal insoluble in water and organic solvents. It is widely used in the production of alloys. Short-term oral exposure to antimony [At what levels?] has been shown to cause burning stomach pains, colic, nausea and vomiting in humans. Long-term occupational inhalation exposure is associated with heart disease in both human and laboratory animals. Decreased longevity and altered cholesterol levels have been observed in rats. Antimony has not been tested for carcinogenicity.

Tin is a soft, silvery white metal insoluble in water. It is used as a protective coating for other metals such as in household utensils, as soft solders, and in the packaging industry. Exposure to tin may occur in mining, smelting, and refining, and in the production and use of tin alloys and solders. Inorganic tin salts are mild skin irritants. Exposure to dust or fumes of inorganic tin is known to cause lung disease. Tin is not classifiable as to human carcinogenicity.

Zinc is a bluish-white metal that is stable in dry air, but becomes covered with a white coating on exposure to moist air. Zinc is present in abundance in the earth's crust. Zinc chloride is used as a wood preservative, in dry battery cells, in oil refining operations, and in the manufacture of dyes, activated carbon, deodorants and disinfecting solutions. Zinc chromate and zinc oxide are used primarily as pigments. Exposure to zinc compounds can cause skin sensitization, irritation of the nose and throat, fever, and fatigue. Zinc is not classifiable as to human carcinogenicity.

Nickel is a white hard, ferromagnetic metal that is a naturally-occurring element in the earth's crust and is stable in the atmosphere at ambient temperatures. Nickel forms alloys with a variety of metals, including copper, manganese, zinc, chromium and iron. Elemental nickel is used in electroplating and casting operations, magnetic tapes, surgical and dental instruments, nickel-cadmium batteries, and colored ceramics. Occupational exposure to nickel compounds has been associated with an increased incidence of nasal cavity and lung cancers. For this reason, nickel refinery dust has been classified by the EPA as a Group A - Human Carcinogen via the inhalation route of exposure. The most common reaction to nickel exposure is skin sensitization. Nickel and its compounds also irritate the conjunctiva of the eye and the mucous membranes of the upper respiratory tract.

Cadmium is a bluish-white metal. Small amounts of cadmium are found in zinc, copper, and lead ores. Cadmium is insoluble in water but is soluble in acids. Cadmium dust includes dust of various cadmium compounds. Cadmium is used as a protective coating for iron, steel, and copper because it is resistant to corrosion. Cadmium alloys (copper, nickel) may be used as coatings for other materials, welding electrodes, solders, etc., and in pigments and It is used as an amalgam in dentistry; as [as or in?] fungicides, insecticides, etc., and in pigments and paints [should / this be repeated?]. Exposure to cadmium can occur through inhalation and ingestion. Short and long-term inhalation exposure to cadmium dust or fumes is associated with swelling of the lung tissue, pain in the chest, difficulty in breathing and emphysema. Long-term ingestion of cadmium is associated with changes and The EPA has damages to the kidneys in laboratory animals. classified cadmium as a Group B1 probable human carcinogen. Cadmium may be associated with an increased risk of prostate and lung cancer in humans occupationally exposed to this contaminant.

Chromium is a heavy metal that exists in either a trivalent or hexavalent oxidation state. Hexavalent chromium is soluble and mobile in ground water and surface water. Trivalent chromium is in the reduced form and is generally found absorbed to soil, therefore, it is less mobile. Hexavalent chromium is used in chrome plating, copper photography, copper stripping, aluminum anodizing, as a catalyst, in organic synthesis and photography. Exposure to chromium compounds can occur through ingestion, inhalation and skin contact. Hexavalent chromium may have a direct

corrosive effect on the skin and may cause upper respiratory distress, headache, fever, and loss of weight. Long-term occupational inhalation exposure to dust and fumes of hexavalent chromium has been shown to cause lung cancer in humans, expecially those in the chromate-producing industry. In addition, a number of salts of hexavalent chromium are carcinogenic in rats. The EPA has classified hexavalent chromium as a Group A human carcinogen. Trivalent chromium is an essential nutrient and has low toxicity; however, at high levels, it may cause skin irritation.

Polycyclic aromatic hydrocarbons (PAHs) constitute a class of contaminants consisting of substituted and unsubstituted polycyclic aromatic rings formed by the incomplete combustion of organic Their physical, chemical, and biological properties materials. vary with their size and shape. PAHs are persistent in the environment. Benzo (a) pyrene is one of the most common and most Some PAHs are classified by the EPA as a Group B2 hazardous PAH. probable human carcinogens. Benzo (a) pyrene is the most potent of the carcinogenic PAHs. Oral exposure to benzo (a) pyrene has been shown to produce stomach tumors in mice and rats and mammary tumors Dermal exposure to benzo (a) pyrene has been shown to produce skin cancer in mice, rats and rabbits. Oral and inhalation exposure to benzo (a) pyrene has been shown to cause lung tumors in mice and rats. Long-term exposure to PAHs may cause birth defects.

Polychlorinated biphenyls (PCBs) are complex mixtures of the products of the chlorination of biphenyl. The mixtures contain isomers of chlorobiphenyls with different chlorine content. may contain other chlorinated mixtures (e.g., chlorinated naphthalenes and chlorinated dibenzofurans). PCBs are stable and They are used chiefly in insulation for electric nonflammable. cables and wires. PCBs are persistent in the environment and bioaccumulate in food chains, with possible adverse effects on animals and man. Prolonged skin contact may cause the formation of hununochloracne which is characterized by blackheads, fat-containing cysts and pustules. Irritation of eyes, nose and throat may also occur. Systemic toxic effects are dependent upon the degree of chlorination of the biphenyls. Short and long-term exposure may cause liver damage. PCBs may cause embryo toxicity leading to stillbirth. Some PCBs are carcinogenic in animals. The EPA has classified PCBs as Group B2 probable human carcinogens. exposure to PCBs has been shown to cause liver tumors in laboratory animals.

HUMAN HEALTH RISK CHARACTERIZATION

The risk characterization section in a risk assessment summarizes the results of the exposure and toxicity assessments to characterize the baseline risk for the Site. In general, risk is characterized as being unacceptable when (1) contaminants present at the site may cause cancer or some other health effect at existing levels; (2) there is a route or pathway through which a

2

Revisions have not been made to this half yet.

(Note: 2 sited copies)

significance of multiple contaminant exposure within a single medium or across media.

The lead UBK model gives predictions that would be in good -agreement with epidenmiological data if there were no other major sources of lead exposure ((in particular, if there were no exposures to lead paint). Since there are other exposures, the predictions of the model for the effect of soil lead concentrations are probably conservative (too high), although the total blood lead concentrations may be close to or lower than those actually (since other sources would increase blood concentrations). For relatively highly exposed children [What does this mean?], the model predicts that approximately 5-15 [Where did 5-15 come from?](i.e. probably less than 1% of all children) would have blood lead concentrations exceeding 10 ug/dl at an average soil concentration of 500 ppm. At this soil concentration, a negligible fraction of even relatively highly exposed children would have blood lead concentrations exceeding 25 ug/dl.

The results of the lead UBK model used to <u>Uncertainties:</u> determine risk for lead in soil for this site conclude that children are exposed to an unacceptable health risk when lead concentrations in surface soil or dust exceed 500 mg/kg. [Need to discuss health risk associated with using 1000 mg/kg as the cleanup level for subsurface soils in the non-residential areas.] The primary exposure pathways of concern in this case are incidental ingestion of soil and inhalation of dust. The Risk Assessment concluded that there is no significant health risk from consuming fruits or vegetables grown in soil in residential (or potential) residential) areas on and around the Site, provided that such vegetables are washed to remove any soil or dust which may the accumulate on the surface. Lead is not known to be readily translocated through the roots and shoots of plants which interface with subsurface soils including fruits and vegetables. The low levels of lead that are retained by some plant's roots are tightly bound to the cell wall of the roots with little lead passing through the roots into the shoots and other plant parts (e.g., frouts). Although some root vegetables (e.g., carrots) have been shown to bioaccumulate trace amounts of lead, the levels reported are unrearkable [???] from a human health perpective.

Ecological Risk: Since the OU-1 RI focused on the area within a 700-foot radius of the foundry, the ecological risk assessment portion of the Risk Assessment concluded that few ecological endpoints of interest exist due to the urban nature of this area. Further investigation of the ecological impacts that may be associated with this Site, particularly with regard to the Elizabeth River and environmental receptors more than 700 feet from the foundry, will be evaluated in OU-2.

VII. DESCRIPTION OF ALTERNATIVES

In the FS prepared on the Site, a screening of engineering technologies applicable to remediating the contaminated media was performed. The technologies were screened according to their effectiveness, cost, and implementability. Those technologies determined to be most appropriate were then developed into remedial alternatives. The following remedial alternatives have been identified based on the evaluation of alternatives in the FS Report. In all cases, the alternatives are for work to be performed in addition to that already performed under the Removal Action. No treatibility studies were done for this Site. These studies will be done during the design phase of the project.

Alternative 1: No Action

Alternative 2: Surface Soil Excavation, Offsite

Treatment/Disposal, Capping,

Institutional Controls

Alternative 3: Surface and Subsurface Soil Excavation,

Offsite Treatment/Disposal

Alternative 4: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal

Alternative 5: Surface and Subsurface Soil Excavation,

Onsite Treatment, Offsite Disposal,

Capping, Institutional Controls

Alternative 6: Surface and Subsurface Soil Excavation,

Onsite/In Situ Treatment, Offsite

Disposal, Capping, Institutional Controls

Alternative 7: Surface and Limited Subsurface Soil

Excavation, Onsite Treatment, Offsite

Disposal

A. COMMON ELEMENTS OF ALL ALTERNATIVES:

Except for Alternative 1, the No-Action Alternative, all of the remedial alternatives include the following common elements:

Decontamination or demoliton of Facility Building and Equipment

The structural integrity and extent of contamination in the former foundry facility and other buildings associated with the foundry operation will be evaluated to determine it these structures can physically withstand the decontamination process.

Jaring the Remedial Design -

Based on a visual assessment, the former foundry building does not appear to have the structurally abiltipalito withstand decontamination. For the purposes of this Record of Decision, EPA has assumed that the foundry building will be demolished and disposed of offsite in an approved RCRA landfill. Equipment maintained within the building by the current property owner will have to be removed and may require decontamination. The other buildings associated with the foundry operation will be decontaminated or demolished based on the structural assessment. Decontamination would consist of soil and dust removal by vacuum, pressure water wash, or similar means.

Solid residuals generated by the decontamination process would be handled in the same manner as contaminated soils. Any contaminated soil at depth (i.e., to the water table) within the building shall be addressed in a manner consistent with exterior soils on the Holland Property, which is the former Abex foundry.

Soil Excavation and Offsite Disposal

Soil excavation and offsite soil disposal is performed under all the alternatuves. TCLP testing would be conducted to determine whether an excavated soil is a RCRA characteristic hazardous waste. Soil which is determined to be a RCRA hazardous waste would be treated prior to land disposal. Soil which is not a RCRA hazardous waste may still require treatment prior to disposal in a solid waste facility within Virginia or another state. Conventional earth moving equipment would be used to excavate and load the contaminated soil. [Vacuum excavation used under homes?] All excavated areas would be backfilled with clean fill and revegetated to achieve former conditions to the extent practicable.

Soil Treatment By Stabilization and/or Solidification

Where treatment is included, the treatment would be stabilization/solidification by mixing chemicals/reagents with excavated soil and waste material in above ground equipment onsite. This process would create a final product that encapsulates and immobilizes lead and other metals. Specific chemicals/reagents to be used in the process will be determined through a treatability study performed during the Remedial Design phase of this project.

Discharge of Contaminated Water

Discharge of decontamination water and any other water generated during remedial activities will meet Virginia Pollution Discharge Elimination System (VPDES) requirements developed pursuant to the Federal Clean Water Act and Virginia State Water Control Law.

Air Emissions Monitoring During Remedial Activities

Air will be monitored during the remedial activities to protect the health of onsite workers and the community. Sampling of the interior of homes in the vicinity of excavation will be performed to assure there is no significant release of dust into homes during the remedial activity. Air will be monitored to ensure the National Emission Standards for Hazardous Air Pollutants (NESHAPs) developed under the Federal Clean Air Act and the Virginia Regulations for the Control and Abatement of Air Pollution (VRCAAP) are not exceeded.

Transportation, Storage, Treatment and Disposal of Soil Conformace with State Requirements

In all cases, transportation, storage, treatment and disposal of soil will be in compliance with Virginia Hazardous Wastes Management Regulations (VHWMR) or Virginia Solid Waste Management Regulations.

B. DESCRIPTION OF EACH ALTERNATIVE:

A detailed description and the estimated cost of each alternative are summarized below. Present Worth includes an estimate of operation and maintenance (O & M) costs over a thirty year period.

Alternative 1: No Action

Pursuant to the National Contingency Plan (NCP), the "no action" alternative is considered to provide a baseline for comparison to other remedial alternatives. Under this alternative, no action beyond the removal actions would be performed. (Note: The portion of the removal action in the Effingham residential areas has not yet bee completed. EPA is assuming under the No Action Alternative that this remaining removal work would be completed.)

Surface soil (0-12" in depth) with lead levels exceeding 500 mg/kg would remain at the drug rehabilitation center property and the vacant lots. Subsurface soil (> 12" in depth) with lead levels exceeding 500 mg/kg would remain in the Washington Park Housing Project, the Effingham Playground, the Effingham residential area, and the Seventh Street row homes. Subsurface soil exceeding 1000 mg/kg lead would remain at the Abex and McCrea Lots, the Holland Property, the drug rehabiliation center proper and in the vacant lots. Certain areas of lead contamination, in ling the Abex and McCready lots, and areas of the Holland Property, are currently

capped and fenced, minimizing exposure to underlying lead at this However, these caps would not be permanently maintained under this alternative. This action would not reduce the risks to the public health and the environment outlined in Section VI above.

Alternative 2: Surface Soil Excavation, Offsite Disposal, Capping, and Institutional Controls

Under this alternative, remaining surface soil (0-12" in / depth) exceeding 500 mg/kg lead which are not currently capped would be excavated. Areas of excavation would include the drug rehabilitation center property, the Effingham Residential area and the vacant lots. (Note: Although removal of contaminated surface soils in the Effingham residential area is planned as part of the ongoing removal action, this work has not been performed at the issuance of this ROD and is included as part of this alternative.) The excavated soils would be transported to a RCRA Treatment Facility. The soils would be treated at the offsite facility and disposed of in a RCRA Subtitle D approved landfill following testing to assure the treated soils pass the TCLP test for lead.

Existing caps (i.e., pavement) on the Abex Lot, McCready Lot and the Holland Property would be permanently maintained under this alternative. To control exposure to the capped soils on these lots over the long-term, institutional land use controls (e.g., deed restrictions) would be required.

A CERCLA five-year review would be required under this alternative because hazardous substances above 500 mg/kg would be left onsite. This alternative is designated as Alternative II, Case 1. in the FS.

Estimated Capital Cost: \$ 4,865,430

O & M Cost:

\$ At least \$23,500

Present Worth:

\$ 4,888,930

Time to Construct:

12 weeks

Alternative 3: Surface and Subsurface Soil Excavation, Offsite Treatment/Disposal

Surface and subsurface soil exceeding 500 mg/kg lead in residential and non-residential areas would be excavated to the depth of the water table and treated/disposed offsite under this alternative. To the extent practicable, excavation would occur during the period when the water table is at the seasoanlly low Transportation, treatment and disposal would be the elevation. same as Alternative 2. Extensive surface and subsurface soil

excavation would occur within all areas of concern identified by the Remedial Investigation. Prior to the excavation of contaminated soil on the Abex Lot, the McCready Lot, and the Holland property, existing asphalt and concrete would be removed and disposed as construction and demolition debris. This alternative is designated as Alternative II, Case 2, in the FS.

Estimated Capital Cost: \$ 37,895,000
O & M Cost: none
Present Worth: \$ 37,895,000
Time to Construct: 57 weeks

Alternative 4: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal

Surface and subsurface soil exceeding 500 mg/kg lead in residential areas including contaminated soil adjacent to home foundations and beneath homes would be excavated to the depth of the water table. Geotechnical investigations would be performed during the Remedial Design to determine appropriate construction techniques to be used to maintain the structural integrity of the homes during excavation. In non-residential areas, surface soils (0-12" in depth) exceeding 500 mg/kg lead and subsurface soils (>12" in depth) exceeding 1000 mg/kg lead would be excavated to the depth of the water table. To the extent practicable, excavation would occur during the period when the water table is at the seasonally low elevation.

All soil characterized as non-hazardous using the TCLP test would be segregated and transported offsite to an approved RCRA Subtitle D solid waste landfill. Soil characterized as hazardous would be treated using a stabilization/solidification process that mixes the soil with reagents in an onsite treatment system. The process would create a final product that immobilizes metals and meets RCRA Land Disposal Restrictions for lead. The stabilized product would be transported offsite to a solid waste landfill for disposal. Prior to the excavation of contaminated soil on the Abex Lot, the McCready Lot, and the Holland property, existing asphalt and concrete would be removed and disposed as construction and demolition debris. This alternative is based on Alternative III Case 2 in the FS and additional information obtained during the public comment period. [Wendy - any problems with this statement?]

Capital Cost: \$ 25,369,710
O & M Cost: none
Present Worth: \$ 25,369,710
Time to Construct: 55 weeks

Alternative 5: Surface and Subsurface Soil Excavation, Onsite Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, surface and subsurface soil exceeding 500 mg/kg lead in residential and non-residential areas would be excavated, with the exception of the Holland Property, and Abex and McCready Lots, which would be permanently capped with asphalt.

Institutional land use controls and an operation and maintenance program would be implemented to control exposure to capped soils. A ground water monitoring program would be implemented for the permantly capped areas.

All excavated soils would be addressed as described under Alternative 4. A CERCLA five-year review would be required under this alternative because this remedy will leave hazardous substances on Site. This alternative is identified as Alternative V, Case 2 in the FS.

Captial Cost: \$ 22,074,430

At least \$ 23,500 \$ 22,097,930 O & M Cost:

Present Worth:

Time to Construct: 44 weeks

Alternative 6: Surface and Subsurface Soil Excavation, Onsite and In Situ Treatment, Offsite Disposal, Capping, Institutional Controls

Under this alternative, surface and subsurface soil above 500 mg/kg lead within the Abex Lot, the McCready Lot, and Holland Property would be treated in-situ (in place) to immobilize the lead of concern. Surface and subsurface soils exceeding 500 mg/kg lead in all other residential and non-residential areas would be excavated, treated onsite, and disposed offsite as described under Alternative 4.

The in-situ treatment process utilizes augers and mixing paddles to facilitate the injection and mixing of stabilizing agents into subsurface soils. Upon completion of this process, lead within the soil of concern is expected to be stabilized/solidified.

Prior to the in-situ treatment, existing asphalt and concrete on the Abex Lot, McCready Lot and Holland Property would be removed and disposed of as construction and demolition debris. After the treatment is complete, asphalt caps would be permanently placed and these areas. Operation and maintenance, maintained on institutional land use controls and groundwater monitoring would be

necessary for areas that have been treated in-situ and capped. A CERCLA five-year review would be required. This alternative is identified as Alternative VII, Case 2, in the FS.

Capital Cost: \$ 23

\$ 23,654,430

O & M Cost:

At least \$ 23,500

Present Worth:

\$ 23,677,930

Time to Construct: 45 weeks

Alternative 7: Surface and Limited Subsurface Soil Excavation, Instituional Controls, Onsite Treatment, Offsite Disposal

Under this alternative, soils exceeding 500 mg/kg lead from the surface to a depth of two feet would be excavated. Subsurface soils below two feet with lead levels above 5,000 mg/kg would be excavated to the depth of the water table. Soil with lead levels between 500 and 5000 mg/kg lead would remain below a depth of two feet. All excavated soil would be treated as appropriate and disposed of as described under Alternative 4.

Instituional land use controls would be required to prevent exposure to contaminated subsurface soil left in place and to ensure surface soils are not recontaminated as a result of future contruction activities. Activities that would be restricted to prevent recontamination of surface soil include, but are not limited to, construction of housing additions, maintenance, addition/replacement of subsurface utilities, demolition of exiting building/structures, construction of new buildings/structures and construction of in-ground pools.

A CERCLA five-year review would be required under this alternative because this remedy will leave hazardous substances on Site.

Estimated Capital Cost:

\$ 16,169,450

Annual Cost:

none

Present Worth:

\$ 16,169,450

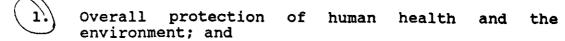
Time to Construct:

40 weeks

VIII. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

This section compares the alternatives listed above in accordance with the nine criteria required by the NCP, 40 CFR Part 300.430(e)(9) for the evaluation of remedial alternatives (Appendix A). The nine criteria can be categorized into three groups: threshold criteria, primary balancing criteria, and modifying criteria.

Threshold criteria:



2. Compliance with applicable or relevant and appropriate requirements.

Primary balancing criteria:

Long-term effectiveness and permanence;

- 4. Reduction of toxicity, mobility, or volume through treatment;
- 5. Short-term effectiveness;
- Implementability; and Cost.

Modifying criteria:

State/Support agency acceptance; and Community Acceptance.

This section compares the alternatives listed above in accordance with the nine criteria required by the NCP for the evaluation of remedial alternatives. (Please see the attached glossary.)

Overall Protection of Human Health and the Environment

Lead levels in the surface soil (0 - 12" in depth) within OU-1 at the Site exceed the residential health-based cleanup level of 500 mg/kg. For this reason alone, Alternative 1 (No Action) would not be protective of human health and therefore will not be considered further as a remedial alternative.

Alternative 2 provides a remedy for existing surface soils (0-12" in depth) within OU-1 exceeding 500 mg/kg lead by excavting and removing these soils. However, Alternative 2 does not excavate and remove subsurface soil (>12" in depth) within OU-1 with greater than 500 mg/kg lead. Exposure to subsurface soil exceeding 500 mg/kg lead in residential areas or 1000 mg/kg lead in non-residential areas either directly or after these soils have been reintroduced to the surface would result in an unacceptable human health risk. Routine activities by property owners or their children that could result in direct contact with subsurface soils include, but are not limited to, gardening of fruits, vegetables and other plants, children playing in soil (e.g. digging holes, making mudpies, etc.), and installing fence posts, decks, and playground equipment. Construction activities that could result in

human exposure to contaminated subsurface soil and the recontamination of surface soil include, but are not limited to, construction of housing additions, maintenance and addition/replacement of subsurface utilities, demolition of existing buildings/structures, construction of new buildings/structures, and construction of in-ground pools.

Alternative 2 includes capping and institutional controls to control human exposure to soils exceeding 500 mg/kg during routine activities and construction activities. If capping and institutional controls were determined to be implementable and effective over the long-term, Alternative 2 could be considered protective of human health and the environment (see evaluation of Long-Term Effectiveness/Permanence and Implementability below).

Alternative 3 would remove surface and subsurface soils with lead exceeding 500 mg/kg. Leath (above the water table in residential and non-residential areas within OU-1). Alternative 4 would require the same excavation as Alternative 3 in the residential areas. In the non-residential areas, Alternative 4 would require removal of surface soil above 500 mg/kg lead and subsurface soil above 1000 mg/kg lead. Both Alternative 3 and 4 would remove surface and subsurface soils above the water table in residential and non-residential areas that exceed health-based cleanup levels. The Abex Lot is the only area where subsurface soil contamination above the cleanup level is expected to occur below the water table. Since future use of this barea and the Abex Lot is not likely to extend into the water table, the minimal quantity of soil exceeding 1000 mg/kg lead below the water table should not present a potential human health threat. Alternatives 3 and 4 are both considered fully protective of human health and the environment.

Alternative 5 would remove surface and subsurface soil exceeding 500 mg/kg lead in residential and non-residential areas within OU-1 with the exception of soils within the Holland Property, and Abex and McCready Lots, which would be permanently capped with asphalt. As under Alternative 2, institutional controls would be required to assure permanent maintenance of the asphalt caps. As noted under Alternative 2, capping and institutional controls would be protective only if implementable and effective over the long-term.

Alternative 6 would remove surface and subsurface soils exceeding 500 mg/kg lead in residential and non-residential areas within OU-1 with the exception of soils within the Holland Property, and Abex and McCready Lots, which would be treated insitu and capped. Provided the in-situ treatment can be implemented and can effectively immobilize the lead of concern, Alternative 6 would be protective. As under Alternatives 2 and 5, institutional controls would be required to assure permanent maintenance for the

asphalt caps. Capping and institutional controls would be protective only if implementable and efffective over the long-term.

Alternative 7 would remove soil within OU-1 exceeding 500 mg/kg lead between the surface and a depth of two feet. removal would minimize unacceptable health risks associated with exposure to shallow soil during routine activities including, but not limited to, gardening of fruits, vegetables and other plants, children playing in soil (e.g. digging holes, making mudpies, etc.), and installing fence posts, decks, and playground equipment. However, under this alternative, lead levels between 500 mg/kg and 5000 mg/kg would remain in soils below two feet in depth. discussed in Alternative 2, construction activities could result in human exposure to contaminated subsurface soil recontamination of surface soil. Alternative 7 could provide a protective remedy if instituational controls restricting construction activities including, but not limited to, construction of housing additions, maintenance and addition/replacement of subsurface utilities, demolition of existing buildings/structures, construction of new buildings/structures, and construction of inground pools were implementable and effective over the long term.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARS)

Under Alternatives 2, 5 and 7, part of OU-1 soils with lead exceeding 500 mg/kg would remain in place. Some of these soils may be a Characteristic Waste (D008) under RCRA due to high levels of leachable lead. In the event such soils are excavated and cannot be replaced within the area of excavation (e.g. due placement of a structure within the area of excavation), treatment would be required prior to placement at another location per RCRA. Institutional controls could potentially assure the required treatment be performed. However, in the event the controls are not properly implemented, the required treatment may not be perfromed ! and placement of the excavated soil may not be in compliance with RCRA.

All other alternatives (should be) in compliance with existing ? ARARs.

Long-term Effectiveness and Permanence

Long-term effectiveness and permanence refers to expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time after cleanup levels have been met.

Alternative 2 would leave subsurface soils (>12" in depth) within OU-1 contaminated with lead levels up to 50,000 mg/kg in place and covered with soil and grass or asphalt. As discussed under the Overall Protection of Human Health and the Environment criterion, Alternative 2 can only be a permament remedy and effective over the long-term if institutional controls permanently maintain the one foot covers of soil/grass and asphalt. As discussed under the Implementability criteria below, institutional controls have not been determined to be implementable in this case. As a result, Alternative 2 is not an effective remedy over the long term.

Alternatives 3 and 4 provide a high degree of long-term effectiveness since surface and subsurface soil that exceed health-based cleanup level for lead in both residential and non-residential areas of OU-1 are excavated, treated as required, and disposed of offsite.

Alternative 5, 6 and 7 all depend on institutional controls as part of the remedy. Alternative 5 would depend on institutional controls to (1) permanently maintain an asphalt cap (or similar containment measure) over the Holland Property, and Abex and McCready Lots, (2) prevent human exposure to soils with high lead levels underlying the asphalt and (3) prevent displacement of soils under the cap to the surface. As discussed under the Implementability criteria below, institutional controls are not implementable in this case and cannot be depended on as part of a remedy. As a result, Alternative 5 would not be effective over the long-term or a permament remedy.

Alternative 6 would depend on institutional controls to maintain the asphalt caps and underlying in situ-treated soils within the Holland Property, and Abex and McCready Lots. While the in situ-treated soil is unlikely to present the potential health threat posed by the untreated soil left in place under Alternative 5, Alternative 6 is still dependent on institutional controls for long-term effectiveness and permanence.

Under Alternative 7, control of contaminated soils left in place within residential areas would also be dependent on institutional controls. While the extent of these controls may be less than those required for Alternative 2, the presense of the soils of concern on residential property render this alternative similarly ineffective over the long-term.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Under Alternative 2, only OU-1 soils within one foot of ground

surface would be excavated and treated per RCRA requirements. Contaminated soils below this level would remain in place. In the case of residential areas, soil below this level would be contained by a one foot layer of clean soil and grass, while the Holland Property, Abex and McCready Lots would be covered with one foot of asphalt. This alternative therefore would not signficantly reduce the toxicity, mobility and volume of lead through treatment.

Under Alternatives 3 and 4, all OU-1 soil containing over 500 to 1000 mg/kg above the water table would be excavated and treated per RCRA requirements to reduce the mobility of lead in the soil. In any case where the soil is treated, the volume of the lead-contaminated soil will increase due to the addition of stabilizing agents designed to reduce lead mobility. The toxicity of lead cannot be reduced by treatment in any case.

Under Alternative 5, OU-1 soil exceeding 500 mg/kg lead in the residential areas above the water table would be excavated and

treated per RCRA requirements to reduce the mobility of lead in the soil. Soil with lead exceeding 1000 mg/kg within the Holland Property, and Abex and McCready Lots would not be treated, but contained with one foot of asphalt. Therefore, lead-laden foundry sands deposited within the Abex Lot would remain untreated, as well as concentrated foundry waste deposited within the former foundry facility (Holland Property). As such, Alternative 5 would fail to treat the primary sources of lead contamination at the Site.

Alternative 6 would treat lead-laden foundry sands and soils on the Holland Property, Abex and McCready Lots in-situ. Soil above the water table and exceeding 500 mg/kg within residential areas would be excavated and treated onsite. While in situ treatment may significantly reduce the mobility of lead, the extent of the reduction in mobility cannot be confirmed at this time.

Alternative 7 would excavate and treat (per RCRA requirements) all OU-1 soils exceeding 500 to 1000 mg/kg lead within 2 feet of ground surface, as well as soils exceeding 5000 mg/kg between 2 feet in depth and the water table. Under Alternative 7, soils between 500/1000 mg/kg and 5000 mg/kg lead within residential areas would remain in place below 2 feet in depth. Therefore, Alternative 7 would not reduce the mobility of lead to the extent accomplished under Alternatives 3 and 4, and perhaps Alternative 6.

Short-term Effectiveness

There are several short-term effects to consider as part of an alternative comparison. Air-borne dust containing elevated lead

levels shall be generated during soil excavation. The extent of soil excavation is highest under Alternatives 3 and 4, and lowest under Alternative 2. Additional dust emissions will be associated with soil handling and operation of treatment units onsite, particularly under Alternative 4. In any case, a Health and Safety Plan shall be developed and implemented to protect the health of residents and workers during remedial activity. The Health and Safety Plan shall include (1) sampling before, during and after remedial activities to assess whether lead is being released to the interior of homes and (2) air monitoring before and during remedial activity. The Health and Safety Plan shall include an assessment of whether temporary relocation of residents is necessary or a methodology for determining if temporary relocation is necessary. Residents shall being temporarily relocated if required by the Health and Safety Plan.

Alternatives 3, 4, 5, 6 and 7 all include excavation of soils between one foot in depth and the water table (estimated at 3 to 6 feet below ground surface), including soils immediately adjacent to or under existing homes. In all cases, the use of heavy equipment will be required. In certain cases, excavation may extend up to an

estimated four feet in depth next to or under a home, and as a result, require significant engineering measures to maintain the structure of the home. In these instances, the Health and safety Plan will detemine when temporary relocation is necessary to assure the safety of the residents.

Implementability

Institutional controls would be required by several alternatives in order to achieve remedies that are protective of human health and the environment and are effective in the long term. Alternative 2 depends on institutional controls to prevent exposure to contaminated subsurface soils (>12" in depth) that are either covered with one foot of clean soil or beneath an asphalt cap. Under Alternatives 5 and 6, institutional controls would be required to prevent future exposure to contaminated soils beneath the asphalt caps on the Holland Property and in the Abex and McCready Lots. Alternative 7 would require institutional controls to prevent exposure to subsurface soil containing lead between 500 and 5000 mg/kg that is present below two feet in depth including possible contamination around and under existing homes and residential units.

Several types of institutional controls were considered for implementation at the Site. In the case of private property, restrictions would be needed in the deeds of impacted properties. These restrictions would need to limit future use to prevent

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unacceptable exposure to contaminated subsurface soil and/or movement of the contaminated soil to the surface. Deed restriction require the consent of the current owner for implementation. At this Site, many private property owners have expressed concern during the public comment period/the cleanup achieve unrestricted future use of their properties. EPA does not expect that these home owners would consent to placing restriction on their property deeds. The City of Portsmouth (owner of Washington Park and Effingham Playground) has also expressed concern about the need to restrict use of its property. Even if current property owners were willing to implement deed restrictions, subsequent owners could remove the restriction. In addition, in the case of Alternative 2, a deed restriction is unlikely to control routine activities such as children playing or individuals gardening that could result in exposure to contaminated subsurface soils.

In addition to achieving institutional controls by deed restrictions, licensing or permitting requirements by the City of Portsmouth were considered as a mechanism to restrict future soil excavation in areas where contamination would remain. Since the City of Portsmouth currently has no authority to regulate such activity, this mechanism could not be used to implement The zoning authority of the City of institutional controls. Portsmouth was the final institutional control mechanism considered. The City would likely face legal issues regarding the taking of property without compensation if zoning requirements were altered to restrict property use to the level necessary to ensure protectiveness of the remedy in the case of several alternatives, particularly Alternatives 2 and 7. Therefore, zoning is not considered an effective mechanism to achieve institutional controls.

Given the overall difficulties associated with institutional controls, alternatives that require these controls to be protective of human health and the environment or to be effective in the long term may not be implementable.

Alternatives 3, 4, 5, 6 include excavation of surface and subsurface soil exceeding 500 or 1000 mg/kg lead between ground surface and the water table in areas addressed by the ROD. The soils include those immediately next to or underlying existing homes. Due to the unstable nature of soil or fill material around or under many of the homes and the proximity of the water table to ground surface (estimated at 3 to 6 feet), strict engineering practices must be followed to prevent damage to the homes during excavation (see Adminstrative Record). While additional costs would be incurred by implementing the necessary engineering controls, all of the soil of concern could be excavated with an insignificant risk of structural damage to the homes (see Adminstrative Record).

In the case of Alternatives 4, 5, 6 and 7, implementation of onsite treatment will require extensive planning and additional construction activities. In each case, bench and pilot-scale treatability studies will be required to help design the system. The implementation of these alternatives will require significant additional activity onsite and will be more time-consuming than Alternatives 2 and 3, where treatment is performed at an existing, RCRA-permitted offsite facility.

Alternative 6 includes in situ treatment of Holland Property, and Abex and McCready Lots, as well as treatment of excavated soils in an additional onsite treatment unit. The use of two separate onsite treatment units may further increase the time necessary to complete the remediation. Extensive pilot-scale treatment studies would be necessary to confirm the effectiveness of the in situ treatment system. In addition, significant administrative activity would be required to obtain approval from the Virginia Department of Waste Management to fully implement in situ treatment as a permanent remedy. As a result of these factors, Alternative 6 would likely take the longest to implement.

Cost (need to update based on CDM)

Alternative 2 has the lowest capital cost. However, long-term cap maintenance and groundwater monitoring costs would be incurred. The estimated present worth of this alternative is \$ 4,865,430.

Alternative 3 is the most costly alternative with an estimated present worth of \$ 37,895,000, while the estimated present worth of Alternative 4 is \$ 29,957,000. There are no annual operation and maintenance costs associated with either alternative.

Alternative 5 and 6 are relatively equal in estimated present worth at \$ 22,097,930 and \$ 23,677,930 respectively. In the case both alternatives, operation and maintenance costs would be incurred.

The estimated present worth of Alternative 7 is \$ 16,169,450. No annual costs are anticipated under this alternative.

Community Acceptance

IX. SELECTED REMEDY AND PERFORMANCE STANDARDS

The remedy selected as best meeting the nine criteria is Alternative 4. Under the selected remedy surface and subsurface soil exceeding 500 mg/kg lead in residential areas shall be

excavated. In non-residential areas, surface soil (0-12" in depth) above 500 mg/kg and subsurface soils (>12" in depth) above 1000 mg/kg shall be excavated.

Air emissions, in the form of particulate lead-contaminated soil and dust generated from Site activities, shall conform with the National Primary and Secondary Ambient Air Quality Standards for Lead in accordance with 40 CFR Part 50.12, for Particulate Matter in accordance with 40 CFR Part 50.6, and for the control of fugitive dust emissions in accordance with Virginia Air Pollution Control Board Regulation VR 04-0101. Monitoring shall be conducted to ensure that dust emissions do not have a negative impact on workers or the surrounding community and should otherwise be in accordance with 40 CFR Part 50, Appendix G. If emission limits are exceeded, dust suppressants shall be applied to control fugitive dust emissions.

Following excavation of the contaminated soil, the soil shall staged in a pile within an area of existing contamination prior to treatment or transportation to an off-site facility unless requirements listed below are met. Berm construction and/or other measures shall be taken to ensure that there is no surface water runoff from the pile in the event of a rainfall. The berms shall be of sufficient height to protect against flooding. After excavation, the area shall be backfilled with imported soil and the area backfilled with imported soil and the berms removed.

If the excavated soil is to be stored temporarily outside of an area of contamination, the soil shall be stored in containers in accordance with RCRA LDR regulations contained in 40 CFR Part 268.50. The containers used shall be in compliance with VHWMR Section 10.8 Use and Management of Containers. Following on-site treatment, any soil that is a characteristic waste shall be stored in accordance with these requirements prior to off-site transportation.

Soil excavation shall continue until all soils over the cleanup goal of 500 mg/kg lead have been removed. Methods for determining that cleanup goals have been reached will be finalized during the design by EPA based on EPA 230/02-89-042, Methods for Evaluating Cleanup Standards, Vol I.

The on-site treatment unit for contaminated soil shall meet the requirements of VHWMR Section 10.9, Tanks.

Following excavation and treatment of soil, if the soil remains a characteristic hazardous waste, transportation off-site shall be in accordance with VHWMR Part VII, Regulations Applicable to Transporters of Hazardous Waste.

All vehicles transporting hazardous waste from the Site shall be washed down before leaving the Site to minimize the spread of contamination to presently non-contaminated areas away from the Site.

Soil that is a characteristic waste shall be disposed of in a hazardous waste landfill. Treated soil that is no longer a characteristic waste will be a "Special Waste" under Part VIII of VSWMR. Specific approval from VDWM's Director shall be obtained before the waste is disposed of in a solid waste landfill in Virginia.

If water from the on-site soil treatment system or from site decontamination activities is to be discharged to the Elizabeth River, the discharge shall be in compliance with Virginia Surface Water Standards and Virginia Water Control Board VPDES requirements. The disposal of wastewater at a local POTW shall be in compliance with the POTW's VPDES permit.

The treated waste shall meet RCRA Land Disposal Restrictions (LDR) treatment standard (5 ppm for leachable lead) before its ultimately disposal.

All local roads damaged by the increased truck traffic due to the remedial action shall be repaired following the conclusion of the onsite excavation.

Closure and Post-Closure Care. If units regulated under VHWMR/RCRA requirements are utilized at the site, (i.e. tanks or containers for storage or treatment) closure and post-closure care for these units shall meet the requirements of VHWMR Section 9.6.

Closure and Post-Closure. An environmental monitoring plan for the site shall be developed to ensure the effectiveness of the Remedial Action and to ensure that the Remedial Action is protective of human health and the environment. This plan must address all potentially impacted environmental media, including, but not limited to, chemical monitoring of groundwater and [chemical/biological monitoring of surface water and sediment?]. The plan shall include the air monitoring described above and groundwater monitoring which meets the relevant and appropriate requirements of VHWMR § 9.6, Closure and Post-Closure.

X. STATUTORY DETERMINATIONS

It is EPA's primary responsibility at Superfund sites to undertake remedial actions that achieve adequate protection of human health and the environment. In addition, Section 121 of

CERCLA (42 U.S.C § 9621) establishes several other statutory requirements and preferences. Under this Section, the selected remedy for the Site, when completed, must comply with ARARs established under Federal and State laws unless a statutory waiver is justified. The selected remedy must also be cost-effective and utilize permanent solutions and alternative treatment technologies or resource recovery technology to the maximum extent practicable. Finally, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity or mobility of contamination as their principle element. This section discusses how the selected remedy meets these statutory requirements.

Protection of Human Health and the Environment

Among the risks associated with the Site, the contaminated soil currently poses the most significant risk to human health and the environment. Through excavation, treatment and off-site disposal of the contaminated soil, the selected remedy is expected to eliminate exposure to lead contaminated soil which originates from the site. In addition, treatment of contaminated soils at the Site is expected to eliminate a potential source that may act as a contributing factor to the groundwater contamination. These measures would protect human health and the environment.

All wastes generated as a result of implementation of the selected remedy will be required to be treated and/or disposed offsite and are not expected to pose any environmental or health hazard.

Compliance With Applicable or Relevant and Appropriate Requirements (ARARS) and To Be Considered Materials (TBCs)

The selected remedy will comply with all Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered Materials (TBCs) as depicted in Table __ and presented below.

Chemical-specific ARARs

- 1. Following excavation and treatment of soil, the treated soil will be tested using the TCLP method to determine whether it is a characteristic hazardous waste in accordance with VHWMR Part III. The treated soil must pass the TCLP before it is eligible for disposal in a Subtitle D landfill. The constituent concentration for lead under the TCLP is 5.0 mg/lit.
- 2. Any discharge of wastewater generated from the soil treatment unit and/or from decontamination activities must be in accordance with Virginia Standards for Surface

Water and the substantive requirements of the Virginia Pollution Discharge Elimination System Permit Regulation. Disposal of wastewater at a local POTW must be in compliance with the POTW's VPDES permit.

Location-specific ARARS

- 1. Because the site is located within a 500-year floodplain for the South Branch, Elizabeth River, the work to be conducted must comply with applicable, or relevant and appropriate requirements of the Executive Order entitled "Floodplain Management", Executive Order 11988; the National Flood Insurance Act of 1968; the Flood Disaster Act of 1973; and Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act.
- 2. The Site lies within the Coastal Management Zone of the City of Portsmouth. Site activities must therefore be consistent with the goals and objectives of the Virginia Coastal Resources Management Program, and must comply with the Coastal Zone Management Act; the Coastal Management Plan for the City of Portsmouth; and the National Oceanic and Atmospheric Administration (NOAA) Regulations on Federal Consistency With Approved State Coastal Zone Management Programs.
- The City of Portsmouth Planning Department has designated the area in which the Site lies as a Resource Management Area of a Chesapeake Bay Preservation Area. The work to be conducted must therefore comply with the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations.

Action-specific ARARS

- Excavation of soil must be in accordance with the Virginia Erosion and Sediment Control Law and Regulations.
- emissions, in the form of particulate 2. contaminated soil and dust generated from Site activities, must conform with the National Primary and Secondary Ambient Air Quality Standards for Lead in accordance with 40 CFR Part 50.12, and for Particulate Matter in accordance with 40 CFR Part 50.6. Monitoring should be conducted to ensure that these emission limits If the limits are exceeded, dust are not exceeded. suppressants must be applied to control fugitive dust emissions. The monitoring will be in accordance with

protocol contained in 40 CFR Part 50, Appendix G, with adjustments to accommodate the short time duration of the excavation activity.

- 3. Following excavation of the contaminated soil, if the excavated soil is to be stored temporarily outside of an area of contamination, the soil must be stored in containers in accordance with RCRA LDR regulations contained in 40 CFR Part 268.50. The containers used must be in compliance with VHWMR Section 10.8 Use and Management of Containers. Following on-site treatment, any soil that is a characteristic waste must be stored in accordance with these requirements prior to off-site transportation.
- 4. The on-site treatment unit for contaminated soil must meet the requirements of VHWMR Section 10.9, Tanks.
- 5. Following excavation and treatment of soil, if the soil remains a characteristic hazardous waste, transportation off-site must be in accordance with VHWMR Part VII, Regulations Applicable to Transporters of Hazardous Waste.
- 6. Any treated or untreated soil that is a characteristic waste must be disposed of in a hazardous waste landfill in accordance with VHWMR and RCRA. Treated soil that is no longer a characteristic waste would be a "Special Waste" under Part VIII of the Virginia Solid Waste Management Regulations (VSWMR). Specific approval from VDWM's Director is necessary before this waste can be disposed of in a solid waste landfill in Virginia.
- 7. All work to be conducted will be in compliance with OSHA regulations for the protection and safety of workers.

Criteria, Advisories, or Guidance To Be Considered (TBCs):

In accordance with EPA's "Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites" (OSWER Directive 9355.4-02), the EPA-established cleanup level of 500 mg/kg for lead-contaminated soil in residential areas will serve as the action level for soil excavation. The 500 mg/kg lead level was chosen as the action level because the site is located in a residential area and is frequented by children.

Cost Effectiveness

Also, these alternatives were not acceptable to the community. No- Action Alternative can be implemented at a much lower cost, but it does not provide for permanent treatment, protect human health and the environment.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

The Commonwealth and EPA have determined that the selected remedy represents the maximum extent to which permanent solutions and alternative treatment technologies can be utilized in a cost-effective manner to control contamination at the Site. The selected remedy also provides the best balance of tradeoffs among the other evaluation criteria including long-term effectiveness and permanence; short-term effectiveness; reduction in toxicity, mobility and volume through treatment; implementability; State/support agency and community acceptance; and preference for treatment of contaminated soils as a principle element.

By treatment of the soils contaminated with lead above 500 mg/kg with Stabilization/Solidification, and off-site disposal, the principle risk at the Site is expected to be significantly reduced, resulting in acceptable risk levels. The selected remedy, therefore, has been determined to be the most appropriate alternative for the Abex Site.

Preference for Treatment as Principal Element

By treating the contaminated soils at the Site, the selected remedy satisfies the statutory preference for remedies that employ treatment as a principal element to permanently reduce the toxicity, mobility and volume of the contamination.

XI. DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan, released for public comment on April 28, 1992 identified Alternative 7 as the preferred alternative of VDWM and EPA. Based on a review of public comments, VDWM and EPA have selected Alternative 4 as the final remedy. The Responsiveness Summary in this ROD and the Adminstrative Record document the public comments of concern and the response of EPA and VDWM to these comments. Major comments and associated responses by EPA and VDWM leading to change in remedy are discussed below.

The preferred alternative in the Proposed Plan, Alternative 7, proposed to excavate all soil with greater than 500 mg/kg lead within the top two feet and all soil above 5000 mg/kg lead below two feet. Affected residents commented that by leaving soil between 500 and 5000 mg/kg in place below two feet, the preferred

alternative was not protective of human health. Based on a review of other comments submitted during the comment period, the EPA and VDWM have concluded that soil exceeding 500-1000 mg/kg between two feet and the water table is reasonably likely to be exposed to the surface over the long-term and may produce an unacceptable health risk over the long-term. In particular, commenters cited homeoimprovements (e.g. housing additions), installation of in-ground pools and maintenance of subsurface utilities as examples of landuse which could expose contaminated soil below 2 feet to the surface and thus present an unacceptable health risk. EPA and VDWM agree that Alternative 7 does not provide the protection necessary in the case of these and other potential land uses.

Several alternatives in the Proposed Plan included institutional controls to control human exposure to contaminated soils. EPA and VDWM evaluated whether Alternative 7 could be an effective remedy with the inclusion of institutional controls. Based on the discussion below, EPA and VDWM agree that institutional controls are unlikely to implementable in this case.

One institutional control evaluated by EPA and VDWM for effectiveness was the deed restriction. Both affected residents and the City of Portsmouth have indicated no interest in voluntarily applying deed restrictions on their own properties. Since neither the EPA nor VDWM can require a property owner to impose such a restriction, this option has been eliminated for impacted residential and City property. In addition, while responsible parties may consent to placement of such restrictions on their property, there is no guarantee these restrictions shall remain in place should the property owner change. Due to the proximity of property owned by responsible parties to existing residential areas, placement of deed restrictions on these properties has been determined to be an ineffective institutional control in this case. (is this why this site is different i.e. why institutional controls are no good even in the case of the AbexLot and Holland property?)

Other institutional controls considered were the permitting, licensing and zoning authorities of the City of Portsmouth. The City has no interest in controlling the disposition of the soils of concern through these authorities. Given the likelihood that part of the soil of concern is a RCRA Characteristic Waste, the City's reluctance to permanently monitor the disposition of the subject soil under its authorities is reasonable.

Based on the above, VDWM and EPA have selected Alternative 4, as described in the Proposed Plan, as the remedy in this case. Several minor changes have been made to Alternative 4 since the

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Proposed Plan based on comments received during the public comment period. In particular, one commenter thought the former foundry facility was too unstable to decontaminate. Based on this comment, the remedy has been revised to include demolition and removal of the former foundry facility in the event that this is necessary. In addition, several commenters questioned how soil could be excavated from under a home without damaging the structure of the home. The EPA and VDWM have determined that soil can be removed from under all of the homes with minimal risk of structural damage. However, if the risk of damage is determined to be more than minimal in the case of a particular home during the Remedial Design, the remedy has included the option of permanently relocating the residents of the home of concern

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RESPONSIVENESS SUMMARY

During the public comment period on the Proposed Plan for the Abex Corporation Site, VDWM and EPA received _____ letters providing comments on the cleanup alternatives. In addition, poral comments were recorded by a stenographer at the public meeting held on May 2, 1992, and tape recorded at the meetings held with local residents on May 28, 1992, June 9, 1992, and June 25, 1992. VDWM and EPA have carefully reviewed these comments and organized them into the following major categories:

- Health Effects of Lead Contamination
- Communication with Impacted Residents
- Compensation for Impacted Residents
- Proposed Cleanup Activities
 - Proposed Cleanup Levels
 - Excavation in Residential Areas
 - Soil Treatment and Disposal
 - Holland Property Buildings
 - Cleanup of the Abex Lot
- Site Investigation Activities
- Social and Economic Concerns
- Enforcement Issues

Responses to comments received are presented below. Copies of the letters submitted to VDWM and EPA are included in Appendix C.

I. Health Effects of Lead Contamination

(a) Several residents questioned how lead can enter the body and cause health problems. Specific concerns included the ability of lead to penetrate the skin, the possibility of inheriting problems associated with lead, possible exposure to lead from cutting grass, the effects of lead in the air, and the relationship between air-borne exposure and climate.

Response: Lead generally enters the body by two routes, ingestion and inhalation of lead bearing materials. In the case of childhood poisonings, lead usually enter the body $\mathcal S$ through the ingestion of substances contaminated with lead. Adults usually are exposed to lead through the inhalation of

lead-bearing materials in occupational settings or during activites associated with hobbies.

Generally children under seven years of age most frequently ingest lead particles in the form of dusts during normal hand mouth activities. The small lead particles get on their hands during play activities and are ingested when they put their hands in their mouths, as is the case with children in this age group. The sources of this lead vary; it may come from finely crushed or powdered lead-based paint, dusts created during the making of fishing sinkers and bullets, from contaminated soils, or numerous other It has been shown that children's blood lead levels tend to raise as they become more active. A child's blood lead level will tend to be quite low until they begin to move around on their own at approximately six months of Xage. At six months of age, children are becoming mobile and proves begin to come into contact with environmental surfaces that may be covered with fine dusts containing lead. When these children play, their hands pick up the dusts which are transferred to their mouths during the normal hand mouth activities exhibited by children of this age group. There may be some exposure due to ingestion of lead contaminated food and drinking water however this contributes much less with secure to their exposure than the hand mouth related activities. to

Older children exhibit much less hand to mouth activity than do small children, so their blood lead levels tend to be lower than those of small children. Older children may ingest lead by activities such as eating contaminated foods, drinking contaminated water, exhibiting poor hygienic practices after play or other activities that put them into contact with contaminated materials, being exposed to lead contaminants present in adult hobby work done at home, and playing in contaminated soils.

The presence of lead in canned foods is no longer a major consideration because canning industry discontinued the use of lead solder in cans several years ago. Lead soldered cans now only come from overseas. Lead may be present in drinking water due to the use of lead solder in copper water lines in home plumbing systems, and due to the use of brass bathroom water fixtures. These sources of lead do not seem to contribute significantly to blood lead in most cases.

Adult lead exposure generally occurs in an occupational setting. Most adults are exposed to lead by inhalation of dusts or fumes in industrial activities including battery braking or recycling, lead foundry work, sand blasting, bridge and elevated storage tank painting, auto body work, burning and sanding of lead-based paint, stained glass

making, and supervising/cleaning indoor firing ranges. Adults can also be exposed to lead through activities such as manufacturing bullets and fishing sinkers at home. The concentrations of lead to which adults are exposed in occupational settings may be hundreds of times higher than those to which persons may be exposed at home. All age groups may ingest lead by using improperly glazed ceramic vessels for storing acidic foods and beverages. The acidic nature of the foods and beverages may cause lead to leach from the glazed surface of the ceramic vessels.

Inorganic lead is generally found in forms that are not water or fat soluble, therefore absorption through the skin does not occur. It is also important to note that lead particles are far too large to pass through the pores in the skin. Therefore this route of exposure is not of any significance. The only forms of lead that may be absobed through the skin are those in organic lead compounds such as tetramethyl lead that was used in gasoline. The compounds at Abex are inorganic and therefore will not pass through skin.

Lead exposure of pregnant women may impact upon fetuses in utero. Since the maternal blood does pass across the placenta, the level of lead in the blood of a pregnant woman may affect developmental changes in the fetus as a result of her lead exposure. While the blood lead level of a pregnant woman may have an effect upon the fetus, there is no evidence whatsoever to indicate that blood lead levels are inherited. There is no evidence that any genetic code allows for elevated blood lead levels. Exposure to lead hazards in the environment is the important determining factor in the status of blood lead levels of individuals.

Children's blood lead levels tend to increase during the summer months due there increased activity both inside of the house and outdoors. During the warmer portion of the year, children are more active and more inquisitive. Their hand, mouth activities increase as well as the frequency with which they get their hands dirty during play. With children going in and out of the house, constantly coming into contact with various environmental surfaces, and engaging in various activities in which they dirty their hands, their exposure to lead hazards in the environment increases.

Some adults may show a slight increase in blood lead during the warm months by scrapping and painting their homes, and engaging in other activities that may increase outdoor exposure to lead hazards. It should be pointed out that the main sources of adult exposure are through occupational inhalation of lead dusts and fumes. Occupational exposure should not increase in the summer,

although workers that fail to obey safe work practices such as the utilization of protective equipment because of the heat may be effected.

A basic concept of risk assessment is that there is no risk unless there is exposure of an individual to a contaminant. If for some reason the contaminant does not come into contact with the individual, there is no exposure and, therefore, no risk. In the case where a person mows the grass in an area where the soil is contaminated with lead, grass acts as a barrier between the lead contaminated soil and the individual. The grass and its roots not only holds the soil in place, but acts as a barrier which prevents much of the exposure to lead in soil. When mowing, the grass keeps the soil in place, thus preventing exposure. When bare patches of soil are encountered, small amounts of soil may be thrown up into the air, where they are dispersed. The resulting exposure would be minute at best. Hand washing after such activities further reduces the possibility of exposure to the contaminated soils.

It should be noted that the major route of exposure to lead contaminated soil at the Abex site is through the incidental ingestion of soils. As previously stated, this pathway is of the greatest significance for small children.

(b) Many residents from the impacted area questioned how the lead contamination could affect the health of their families, particularly their children. Specific concerns included the health effects to different age groups (e.g., children under six, older children, and adults), sypmtoms of lead poisoning parents should look for in children, how parents can recognize cognitive or physical development impacts of lead in their children, health effects of lead in bones of children and adults, available studies on physical health problems caused by lead exposure, ability of lead to accumulate in the body, the teratogen effects of lead, and the presence of a teratogen registry.

Response: Children younger than seven years of age are the most sensitive group to the effects of lead. These young children absorb larger amounts of lead than do older individuals and due to their hand mouth activities generally ingest larger quantities of lead. The main target of lead's detremental effects is the central nervous system. Since the organ systems in these small children are still developing (brain and other parts of the central nervous system in particular), the effects of lead on these children are most profound. The earlier in life an individual is impacted by the deliterious effects of lead, the more likely that individual is to suffer significant adverse health effects. Learning disabilities, and social and behavioral

problems are associated with childhood lead poisoning. Studies have shown that decreased cognitive skill and motor skill development are associated with elevated blood lead levels. These effects were seen to increase in severity at higher blood lead levels [range?]. At low blood lead levels [range?], lead may adversely effect IQ, hearing, and growth. Lead is implicated in decreased synthesis of a vitamin D metabolite and decreased nerve conduction velocity at slightly higher blood lead levels. At moderate blood lead levels [range?] vitamin D metabolism and hemoglobin synthesic may be adversely effected. At high blood lead levels [range?] lead anemia, lead cholic, kidney damage, and brain damage may occur.

In extensive studies, Needleman and Gatsonis found that children with higher lead levels [range?] preformed more poorly is school than did children with lower lead levels [range?]. In these studies, a number of learning related problems were seen to be associated with the group of students with the higher lead levels. Among the impacts cited were problems with attention and fine motor coordination, deficits is reading and vocabulary skills, increased absenteeism, and lower class ranking in school. number of other investigators have also examined the effects of lead on cognitive skills and development. Along with Needleman, work in this area has been done by Lansdown et al., Fulton et al., Bellenger, Fergusson et al., and a host of others. Schwartz et al., Mushak et al., Bornschein et al., and Chisholm are among the investigators that have investigated the health effects of lead in children.

Older children are not as suseptable to lead poisoning as are younger children since (1) the hand to mouth activity patterns change in children over the age of six, (2) the target system for the toxic effects of lead is more completely formed, and (3) the absorption of lead decreases. However, if these older children are poisoned, they may be adversely effected. Lead will interfere with heme synthesis and may impact upon motor skills. Lead may effect the kidneys, may cause anemia, and may effect the brain at high blood lead levels [range?].

In adults, as previously stated, most lead exposure and poisoning is the result of inhalation of lead bearing materials in occupational settings or during the course of work associated with hobbies. Adult workers in occupations such as bridge and elevated storage tank sand blasting and painting are sometimes victims of lead poisoning. Adults that engage in the hobbies of making decorative stained glass, or the production of homemade bullets and fishing sinkers may become poisoned, as well as persons involved in the supervision and cleaning of indoor firing ranges. These

individuals are exposed to lead at extremely high concentrations [range?]. These workers may suffer lead anemia, lead cholic, kidney damage, elevated blood pressure, neuromuscular problems, brain damage, and even death. These symptoms are associated with extremely high blood lead levels, and would not be characteristic of persons associated with the types and extent of exposure to lead contamination around the homes at the Abex Site.

There are no specific symptoms for lead poisoning. Lead poisoned individuals may be hyperactive or irritable, they may have diarrhea or be constipated, the may have headaches, or develop severe stomach cramps. These general symptoms are usually associated with significantly elevated blood lead levels [range?]. At low blood lead levels [range?] there are no distinctive symptoms.

When individuals are exposed to lead, it must be absorbed before adverse health effects are seen. It should be noted that most lead to which individuals are exposed is not absorbed. The fraction that is absorbed will go to the target organs of the central nervous system, the hemopoietic system (blood forming organs), and bone. The effects on the central nervous system have already been discussed. may bind in place of iron in the heme group in hemoglobin, the oxygen carrying protein in blood, and may effect hemoglobin synthesis. Lead may be stored in bone along with other minerals. The bones then become a reservoir for lead in the human body where the lead to which individuals are exposed may accumulate. When other minerals in the bones are mobilized, stored lead will be mobilized as well. This mobilized lead may enter the blood stream and be incorporated into the hemoglobin in the red blood cells. literature could be found which associates lead with bone deformaties in children or adults.

The best measure to determine if small children have been impacted by lead is the regular blood lead screening of children at risk. If children below seven years of age thought to be at risk are screened on a yearly basis, potential problems may be identified and with the help of health professionals, sources of potential problems may be identified, and proper treatment given when required.

Lead has been shown to have teratogenic effects in some studies. Lead may present a hazard to reproduction and exerts a toxic effect on conception, pregnancy, and the fetus in humans and experimental animals. It should be noted that the central nervous system effects upon small children and the developing fetus at this point appear to be the most significant of those listed since they occur at low levels. There is no known registry for teratogenic effects

of lead. [Reggie-okay??]

(c) Several residents asked how to prevent their children from being affected by the contamination.

Response: Risk due to lead exposure may be minimized by washing the hands of small children with soap and water frequently, especially before eating and drinking of beverages, by cleaning environmental surfaces with trisodium phosphate and water solution on a regular basis, and regular blood lead screening of children below seven years of age. If soil thought to be contaminated with lead is covered with grass or some other ground cover, the chance of exposure is Foods placed on environmental surfaces that may decreased. be contaminated with lead dusts should be rinsed with water before eating or preparation. Proper diet is also an important concern in regards to lead poisoning. Low fat diets are important for maintaining a good lead status. Persons eating fatty foods will absorb more lead than those maintaining low fat diets. Lead is also more readily absorbed if ingested when the stomach is empty. Additionally, small children that are iron deficient may have the lead they absorb substituted in place of the iron in the heme in their red blood cells, causing the red blood cells to have diminished oxygen transport capabilities.

(d) Many residents expressed concern that testing had not been performed to determine if their families suffer from lead poisoning. Several generations of some families have lived in the impacted area. Residents requested that immediate blood testing for lead be made available at no charge to anyone who may have been exposed to lead contamination in the impacted area.

Response: The City of Portsmouth Health Department provided free blood lead testing to individuals in the impacted areas during July and August 1992. A total of 546 individual were tested. At a public meeting held on August 26, 1992, the Director of Public Health for the City of Portsmouth presented a summary of the blood lead test results. All but four analyses had been received at that time. Of the available data, 21 children had blood lead level above 10 ug/dL. The highest blood level observed was 19 ug/dL.

(e) Several residents questioned how the levels of lead in the blood relate to possible health effects and if those effects would be permanent.

Response: There are some general quidelines associated with

the lowest observed effect levels of organic lead in These lowest effect levels refer to the lowest blood lead level at which certain effects have been adequately demonstrated in studies, and are not the lowest levels at which effects may be exerted by lead. It should also be noted that these are general guidelines for small Transplacental transfer of lead is thought to children. occur at blood lead levels of less than 10 ug/dL. Developmental toxicity effects such as decreased IQ, and impaired hearing and growth are thought to occur at around 10 ug/dL of blood lead. Lead's impairment of the synthesis of the active metabolite 1,25-(OH)2 vitamin D occurs at blood lead levels of 10-15ug/dL of lead. Maternal and cord blood lead levels of 10-15 ug/dL seem to be associated with reduced gestational age and reduced weight at birth. Nerve conduction velocity decreases at blood lead levels of around 20 ug/dL. Decreased vitamin D metabolism is associated with blood leads of about 30 ug/dL. At blood lead levels around in blood a 40 ug/dIAhemoglobin synthesis@is(interfered with) Lead & O cholic and its associated symptoms occurs at blood lead levels of around 60 ug/dL or higher. At blood lead levels around 70 ug/dL or higher, lead anemia may occur. Blood lead levels in excess of 80 ug/dL are associated with severe kidney damage, encephalopathy, coma and death in small children. Workers in occupational settings are-sometimes have seen with blood lead levels in excess of 150 ug/dL.

As a general rule, the effects of lead are more serious and permaneral the earlier exposure occurs in the development of the central nervous. Elevated blood lead levels will decrease once the source of the exposure causing the increase is eliminated. The elevated blood lead level will decrease over a period of time. Certain effects such as those on the kidney at low blood lead levels for a short duration are reversible. Effects upon hemoglobin synthesis, vitamin D metabolism, lead cholic, and lead anemia are reversible as well.

(f) Residents questioned what would happen if elevated levels of lead occur in blood test results. Residents also questioned if EPA investigates cases of lead poisoning.

Response: The City of Portsmouth Health Department has been notifying and advising families with children having elevated blood levels of appropriate follow-up measures. About EPA does not investigate cases of lead poisoning. However, the Agency for Toxic Substances and Disease Registry (ATSDR) health is responsible for addressing potential public health problems associated with environmental exposure to hazardous substances from waste sites and releases of hazardous materials into the environment. On August 19, 1992, Portsmouth city officials asked ATSDR to review the results

of the blood lead testing conducted for residents at the Abex Site. Upon completion of its review, ATSDR will be meeting with local residents to discuss the blood lead results and assist with follow-up activities.

(g) Residents questioned how the health effects of lead change based on the length of time that an individual is exposed to the contamination. Several residents questioned whether children visiting the area and playing in contaminated soils could be affected. Residents also questioned whether former residents who have since moved from the area could still be affected. Other residents questioned the impact of longterm exposure to the contaminated soil.

Response: [Reggie]

(h) One resident questioned if health effects in children could go unnoticed by those around them.

Response: [Reggie]

(i) Several residents questioned the impact over the years of eating fruit and vegetables grown in contaminated soil. One resident stated that conventioal washing of vegetables would not remove lead contamination.

Response: Region III has qualitatively assessed [what does this mean? what about evaluation in PRP risk assessment?] the risk likely to be posed to human health due to ingestion of home grown fruits and vegetables in the study area. Lead is not known to be readily translocated through the roots and shoots of plants which interface with subsurface soils including fruits and vegetables. The low levels of lead that are retained by some plant's roots are tightly bound to the cell wall of the roots with little lead passing through the roots into the shoots and other plant parts (e.g., fruits). Although some root vegetables (e.g., carrots) have been shown to bioaccumulate trace amounts of lead, the levels reported are insignificant from a human health perspective. It should be noted that while lead from subsurface soil is not readily translocated into the roots and tissues of fruits and vegetables, lead from surface soil deposition (e.g., atmospheric source; soil dust; paint chips, etc.) contributes to the vast majority of lead that is found in food (e.g., fruits and vegetables). This type of exposure can be eliminated by proper washing of the hands and food, before eating. [what is proper washing? ATSDR recommneded peeling?] > specify (j) Several residents expressed concern that the mental stress they were experiencing posed as much or more of a health threat than the lead contamination. Residents requested that a mental health team be provided to assist them.

Response: EPA and VDWM are aware of the mental stress local residents are experiencing in having to deal with the impacts of the Abex Superfund Site in their neighborhood. EPA and VDWM have been attempting to provide local residents tried with accurate information regarding the conditions at the Site to help alleviate fears based on misinformation. EPA peculative and VDWM will continue to work with the local community through the design and implementation of the remedy selected in the ROD. ATDSR will also be providing assistance to local residents.

(k) Several residents expressed concern regarding the seriousness of the immediate threat to impacted residents and the need for immediate action. One individual commented that information from a variety of sources including requirements of the Occupational Health and Saftey Act (OSHA) indicate lead presents a more serious immediate threat than indicated by EPA's toxicologist.

Response: [Reggie]

- must be immediate threat if EPA is using "emergency" removal authority to clean up
- (1) One resident wanted to know the findings of the final risk assessment for current and future exposure scenarios at the Site for the major contaminants of conern.

Response: This information is summarized in Section VI (Summary of Site Risks) of the ROD.

(m) Several residents questioned the meaning of the term "upper bound cancer risk" used by EPA.

Response: Cancer unlike noncancer health effects does not have a threshold at which it is safe to assume that adverse health effects will not occur. Therefore, the EPA assumes that there is no level of exposure to a carcinogen that does not create the possibility, however small, of generating a carcinogenic response. The EPA uses a two-part cancer risk evaluation in which the substance first is assigned a weight-of-evidence classification, and then a slope factor is calculated. A chemical weight-of-evidence classification indicates the strength of the evidence that a chemical is a human carcinogen. The EPA has the following classification:

Group A	Human Carcinogen
Group B1 or B2	Probable Human Carcinogen - B1 indicates that limited human data are available; B2 indicates sufficient evidence in animals and inadequate or no evidence in humans
Group C	Possible human carcinogen
Group D	Not classifiable as to human carcinogenicity
Group E	Evidence of noncarcinogenicity for humans

The EPA calculates a slope factor for both Group A and Group B carcinogens. A slope factor is a toxicity value that defines quantitatively the relationship between dose and response of a carcinogen. The slope factor is an upper bound estimate of the probability of a response per unit intake of a chemical over a lifetime. It is used in risk assessments to estimate an upper-bound lifetime probability of an individual developing cancer as a result of exposure to a particular level of a potential carcinogen. The term "upper bound" reflects the conservative estimate of the risks calculated from the slope factor.

The—EPA currently regulates contaminants whose cancer risk exceeds an upper bound risk of one additional cancer in a population of 10,000 people (referred to as a 10⁻⁴ cancer risk). A contaminant whose upper bound risk level is between one additional cancer in a population of 10,000 (a 10⁻⁴ cancer risk) and one additional cancer in a population of one million (a 10⁻⁶ cancer risk) is within the acceptable cancer risk range, as defined by the EPA.

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It should be noted here that the <u>upper bound</u> total cancer risk for residents at this Site does not exceed EPA's acceptable cancer risk range. The total lifetime cancer risk for a resident living 70 years in the study area is estimated to be one additional cancer in a population of 33,300 people (a 3.0 x 10⁻⁵ cancer risk). If individuals were working in the former foundry building on the Holland Property eight hours a day, five days a week, fifty weeks a year for a total of 25 years, the total lifetime cancer risk estimate for these workers would be one additional cancer risk in a population of 1,115 (an 8.97 x 10⁻⁴ cancer risk). This cancer risk level exceeds EPA's acceptable risk range.

II. Communication With the Impacted Residents

- (a) Homeowners with properties impacted by the proposed cleanup expressed concern that they were not notified of known or suspected contamination at the time they purchased their properties. A Dum @ Cy, Pomsmouth + administry Castolic Response:
- (b) Many residents questioned how VDWM and EPA compiled their mailing list for distributing Site information since many had not received Agency mailings. Some residents stated that they were first informed of the problem when they received a letter from the cleanup contractor requesting access to begin work. One resident did not believe the Agency used an effective method used to notify residents of the public comment period.

Response:

Response:

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Several residents questioned the length of time required by VDWM and EPA to provide sampling results to residents. Residents questioned why the final results of data collected as early as 1984 were not completed until February 1992.

Response:

- (d) Several residents expressed concern that the cleanup action was initiated before questions were answered.

 STREET BY EPAVIA WILATERAL SEVERAL Response: MIGS HELD MORE TO COME!
- (e) Residents questioned why they had not been notified of the potential danger at the Site earlier and questioned what government agency is responsible for advising residents of such danger.

Response:

(q) One individual questioned why the Administrative Record was

not organized in chronologic order and stated that review of the material was difficult to follow and understand.

Response: UN PEINDEX AFTER BELLING ROD & APPENDICE:

III. Compensation for Impacted Residents

Wendi, Kathryn...)

(a) Many residents expressed a strong desire to be permanently relocated. The affected homeowners specifically requested that an alternative be considered that would award them replacement value of their homes and land and a six to twelve month temporary housing allowance. This alternative would also include the cleanup requirements of the preferred alternative identified in the Proposed Plan.

Response: EPA and VDWM have determined that the selected remedy, upon implementation, shall be fully protective of the health of persons residing within areas addressed under this ROD. Since all soils exceeding health-based levels above the water table shall be removed, no restrictions on the use of the properties of concern should be necessary. As a result, the EPA and VDWM believe that permanent relocation due to a continuing health threat will be unnecessary. A Health and Safety Plan and Remedial Design shall be developed prior to implementation of the selected remedy. The Health and Safety Plan/Remedial Design shall include a provision for temporary relocation of residents in the event this is necessary to protect the health and/or safety of residents during the remedy implementation. remedy includes the excavation of soils under and immediately adjacent to existing housing. This excavation is expected to performed with minimal risk of damage to the structure of these homes. In the event that the Remedial Design finds there is a significant risk of permanent structural damage to a home due required excavation, and as a result, a potential threat to the safety of the residents over the long-term due to such structural damage, the Health and Safety Plan may include an option of permanent relocation to protect the safety of the residents. In this case, the affected homeowners would be awarded the replacement value of their homes and temporary housing allowance However, based on available information,

(b) Several residents requested compensation for possible health loss including mental agony and stress.

Response: The selected remedy is required under the authority of CERCLA and NCP. The objective of CERCLA and

permanent relocation is not expected to be necessary. (Kim,

the NCP is to protect human health and the environment. EPA and VDWM understand that residents may have experienced health loss including mental agony and stress in this case. However, neither CERCLA, the NCP or any other statute implemented by either EPA or VDWM provide the authority for these agencies to require this compensation by responsible parties. This compensation can be only be required as a result of legal action brought by impacted residents against the responsible parties. (Wendi)

(c) Several homeowners expressed concern that the negative stigma of contamination in the area has left them with property they cannot sell.

Response: Upon completion of the remedial action, the residential properties of concern shall not present an unacceptable risk to human health. This action should help remove any stigma associated with the property prior to the remedial action.

(d) Several homeowners expressed concern that possible deed restrictions would limit what they or future owners can do on their properties without risking their health.

Response: Deed restrictions are institutional controls which can limit the use of a property in a manner necessary to protect human health. Several remedial alternatives considered in this case included institutional controls for this purpose. However, the selected remedy does not include deed restrictions or any other institutional controls. As a result, there should be no question regarding the effectiveness of such controls and their ability to protect human health over the long-term.

(e) A few homeowners expressed concern that they had been unable to secure home improvement loans because of the contamination on their properties.

Response: Due to the presense of contaminated soil, home improvements cannot be performed in the case of certain residences without creating a potential unacceptable risk to human health. By removing all soil exceeding health-based levels above the water table, the selected remedy shall allow property owners to perform home improvements (e.g. housing additions) without an unacceptable risk to their health or the health of future owners of the property. After completion of the Remedial Action, property contamination should not be a basis for rejecting a home improvement loan application.

IV. Proposed Cleanup Activities

Proposed Cleanup Levels

(a) The Abex Corporation commented that VDWM failed to justify its classification of soils or wastes with concentrations of lead above 5,000 mg/kg as constituting a "principal threat". The Abex Corporation also asserted that VDWM misused the principal threat determination during the criteria evaluation process.

Response: The preamble to Section 300.430(a)(1)(iii) of the NCP states EPA's preference for treatment in addressing principal threats posed by a site wherever practicable. NCP further states that principal threats are characterized as waste that cannot be reliably controlled in place, such as liquids, highly mobile materials (e.g., solvents), and high concentrations of toxic compounds (e.g., several orders of magnitude above levels that allow for unrestricted use and unlimited exposure). EPA and VDWM determined that the waste at the Abex Site could not be reliably controlled in place without significantly restricting future use of residential property in the Effingham residential area, in the Seventh Street row homes, and the Washington Park Housing Project. Restrictions on future use would also be required in commercial and light industrial areas including the Holland Property, the Abex and McCready Lots, the drug rehabilitation center property, and the vacant lots east of Seventh Street. If only soil with lead concentrations exceeding 500 mg/kg in the surface soil (0 - 12" in depth) would be excavated as proposed in Alternative 2, deed restrictions that prevent any activity that disturbs soil below twelve inches would be required on all properties with subsurface contamination above 500 mg/kg lead. These restrictions would be necessary to reliably control the contamination in place and ensure that lead levels above 500 mg/kg are not reintroduced into the surface soil.

At the time the Proposed Plan was issued, EPA and VDWM were balancing several factors in determining a preferred remedial alternative. These factors included the need to provide effective long-term protection of human health, the potential disruption to the community resulting from extensive excavation, and the limitations of institutional controls. In an effort to achieve a balance among these factors, EPA and VDWM proposed defining soils or wastes with concentrations of lead above 5,000 mg/kg as a principal threat and using this concept in the development of Alternative 7. By requiring excavation of these highly contaminated soils, EPA and VDWM believed the need for institutional controls could be significantly reduced. Upon further consideration, EPA and VDWM have determined that

deed restrictions, similar to those discussed above for Alternative 2, would be required for Alternative 7 in order to reliably control contamination between 500 and 5,000 mg/kg lead that would be left in place below two feet. Therefore, while EPA and VDWM maintain that highly contaminated soils at the site could be considered a principal threat, EPA has not used this concept as a basis for the selection of the remedy in the ROD.

(b) The Abex Corporation commented that there is no documentation in the record supporting the use of 500 mg/kg as a cleanup level in non-residential areas. The Abex Corporation further commented that the Abex Lot and the Holland Property have been designated for industrial/light commercial use for the last one hundred years and are unlikely to be redesignated as residential in the forseeable future.

Response: The Proposed Plan recommended a cleanup level of 500 mg/kg lead for all areas addressed under OU-1 including those zoned commercial or light industrial by the City of Portsmouth (e.g. the Abex Lot, the Holland Property) due to the close proximity of these properties to existing residential areas. The final remedy selected in the ROD continues to require excavation of surface soil (0 - 12" in depth) that exceeds the cleanup level of 500 mg/kg lead in areas within OU-1 that are zoned as commercial or light industrial for the same reason.

EPA and VDWM agree with the Abex Corporation that the cleanup level of 500 mg/kg is not appropriate for subsurface soil of areas in OU-1 zoned as commercial or light industrial. The final remedy requires excavation of subsurface soil (> 12") to the depth of the water table if lead concentrations exceed 1000 mg/kg. A cleanup level of 1000 mg/kg lead has been required for industrial areas at other Superfund sites including the C&R Battery Site in Chesterfield County, Virginia.

(c) The Abex Corporation commented that there is no basis in the Adminstrative Record for concluding that lead above 500 mg/kg or greater than one foot in depth constitutes a threat to human health or the environment. The Abex Corporation further commented that excavating all lead-contaminated soil in excess of 500 mg/kg to the water table is not significantly more protective of human health and the environment than excavating to two feet.

Response: The Proposed Plan, which is part of the Adminstrative Record, stated the basis for concern regarding contaminated subsurface soil in the disussion of overall

protection of human health and the environment (See Evaluation of Alternatives in Proposed Plan). EPA and VDWM, as well as many residents in the impacted area, are concerned that exposure to subsurface soil (> 12" in depth) that exceeds 500 mg/kg lead will occur either directly through routine activities such as gardening, children playing, and typical backyard construction or by exposure to surface soil recontaminated by future construction and/or earth moving activities. The Abex Corporation asserts that only soil within one foot in depth is likely to be exposed to the surface at any time in the future. EPA and VDWM disagree with this assertion and contend that it is reasonable to assume that soil below one foot is likely to be exposed to the surface in significant quantities at some point in the future. The Abex Corporation further asserts that it is standard practice to segregate excavated topsoil and deeper soil in a manner which would prevent permanant placement of excavated, contaminated deeper soil on the surface. However, the Abex Corporation does not present, and EPA and VDWM are not aware of, any mechanism for assuring this practice is followed. Since EPA, in consultation with VDWM, is selecting a final remedial action for OU-1 in this ROD, EPA and VDWM believe it is reasonable to require excavation of contaminated subsurface soil to the depth of the water table.

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(d) The Abex Corporation commented that memo from Candace J. Wingfield, Regional Coordinator of the CERCLA Enforcement Branch, QWPF (EPA, Washington, D.C.) stated that "redistribution of soils to the surface could result in a direct contact threat." However, the soil at the Site does not pose "a direct contact threat" since dermal absorption of lead is miniscule.

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Response: While not explicitly stated, the memo of concern assumed incidental ingestion of soil to constitute part of a direct contact threat at the site.

(e) The Abex Corporation commented that there is no basis in the Administrative Record for establishing the elimination of inhalation of dust which exceeds 500 mg/kg lead as (sic) primary objective of the remedial action.

Response: EPA and VDWM agree that incidental soil ingestion is the primary exposure pathway of concern with regard to lead. Dust inhalation may be considered a secondary pathway relative to incidental ingestion.

(f) The Abex Corporation commented that through deed restrictions, permitting, or licensing, exposure of deeper contmainted soils to the surface could be controlled.

Response: The difficulties associated with the use of institutional controls at the Site are discussed in the Implementability portion of Section VIII (Summary of Comparative Analysis of Alternatives) in the ROD. EPA and VDWM have determined that alternatives that require institutional controls to be protective of human health and the environment or to be effective in the long term may not be implementable.

(g) The Abex Corporation commented that the cleanup concentration of 500 ppm lead should strictly be interpreted as an average over an area in which an individual might spend a large fraction of their time.

Response: The Uptake/Biokinetic model predicts that children exposed to an average soil concentration of 500 mg/kg lead at the Site maintain acceptable blood lead levels. The selected remedy requires excavation of soil exceeding 500 mg/kg lead to the depth of the water table in residential areas. In non-residential areas, surface soil (0 - 12" in depth) above 500 mg/kg and subsurface soil (> 12") above 1000 mg/kg will be excavated to the depth of the water table. Methods for determining that the cleanup goals have been reached will be finalized during the Remedial Design by EPA and VDWM based on EPA 230/02-89-042, Methods for Evaluating Cleanup Standards, Vol. 1.

Excavation in Residential Areas

(a) Several homeowners expressed concern that excavation of contaminated soils around and beneath their homes could leave them structurally unsound.

Response: Based on available information, a professional engineer has determined it is possible to excavate contaminated soils around and under the homes without significant risk of permanent structural damage to the Specific plans shall be developed as part of the Remedial Design and Health and Safety Plan to assure that all excavation work shall be protective of structure of the homes, and as a result, the future safety of the residents. The Remedial Design shall include the development and evaluation of the additional geotechnical data necessary to identify an excavation plan for each house which is protective of the structure of the house. Based on current information, EPA and VDWM have determined that in all cases, excavation can proceed with minimal risk to the structure of the homes. However, should a more detailed evaluation during the Remedial Design find that excavation in the case of a particular home would constitute a signficant risk to

the structure of the home, the Remedial Design/Health and Safety Plan shall include a provision for permanent relocation of the residents of concern.

(b) Several residents questioned how contamination in the crawl spaces beneath their houses would be addressed.

Response: The EPA collected samples of soil within crawl spaces of the homes affected by the selected remedy during the public comment period for the remedy of concern. (include results in AR) The sample results indicate the presence of soil with lead levels exceeding health-based levels within the "bare-ground" floor of many of the crawl spaces sampled. These results confirm contamination associated with the Site extends below homes, an assumption drawn in the FS report based on soil sampling results available at the time. The selected remedy includes the removal of all soil exceeding health-based levels below the homes of concern and above the water table, including any such soil within the crawl spaces.

(c) Several residents expressed concern that contaminated dust and soil inside their homes could be a problem, particularly with the extensive excavation planned. Sampling and inspection of the inside of homes was requested.

Response: The selected remedy includes sampling of the interior of homes before, during and after the Remedial Action is completed. The specific plans for this sampling shall be developed as part of the Health and Safety Plan. In addition, the Health and Safety Plan and Remedial Design shall develop excavation procedures which shall prevent an unacceptable release of contaminants into the air and home interiors. Sampling of home interiors shall be conducted prior to the Remedial Action even if information indicates there should be no release of concern from the approved excavation activities. Should sampling of the home interiors at any time determine there is an unacceptable health risk, the EPA and VDWM will take the action necessary to eliminate this risk.

(d) Many residents expressed concern that the proposed cleanup would not be a permanent solution to the problem. Some residents were opposed to leaving elevated lead levels in place at depths over two feet as recommended in the Proposed Plan preferred alternative because there would be no assurance that unacceptable levels of lead would not reoccur near the surface. Other residents requested that they be given a written quarantee that all lead would be removed and/or that it was safe to live in their homes.

Response: The selected remedy requires all soil with lead levels exceeding 500 mg/kg within the areas addressed by this ROD to be excavated and removed, including soils between 2 feet in depth and the water table. Soil between 2 feet in depth and the water table shall be excavated because these soils may be displaced to the surface and present an unacceptable health risk, not because would these soils would recontaminate overlying soils. There is no evidence that deeper soils have contaminated overlying soils through water table fluctuation or similar means. (review RI data to confirm) All soil above the water table exceeding a healthbased level of 500 mg/kg lead will be removed from residential areas. This health-based level is protective of human health. Lead occurs naturally at lower levels in all soil. As a result, removal of all lead is not technically feasible or necessary and cannot be guaranteed. However, the selected remedy is fully protective of the health of all affected homeowners. A close out report will document accomptable construction levels @ oach location.

(e) One resident questioned how her property could be contaminated when she had covered her property with four feet of topsoil from outside the area. She expressed concern that lead contamination in the deeper soils had seeped up into the clean soils. Several residents with similar concerns recommended using concrete to provide a barrier between clean and contaminated areas. A specific alternative was proposed calling for placement of a 6-10" layer of concrete below two feet of clean soil.

Response: Clean topsoil obtained from outside sources may have been contaminated with lead carried by stormwater or wind from contaminated surface soils nearby (e.g. from the Abex Lot prior to capping of this area). In addition, clean topsoil may have been mixed with contaminated soil during placement or the topsoil may have had elevated lead levels prior to placement in the area of concern. As discussed previously, an evaluation of available soil sampling data does not indicate that lead contamination from deeper soils has "seeped up" into overlying clean soils. While the water table is-rises and falls according to season and during major rain events, there is no evidence that this water table movement is depositing significant levels of lead in soils within the area of water table movement. (confirm) Sampling has confirmed that within residential areas there is a generally a layer of soil above the water table where lead is well below health-based levels. Available information (including historical aerial photographs) indicates that Site-related soil contamination in deeper soils is likely due to placement of lead-laden waste sand generated by Abex. Since there is no evidence of contaminant migration from deeper soils to surface soils, placement of a containment layer of concrete as proposed is

unnecessary. In any case, a layer of concrete at the proposed depth in these circumstances is not recommended due to likely effects on surface and ground water distribution and flow.

(f) Several residents questioned how the proposed cleanup would address contamination under structures in the neighborhood.

Response: The specific methods for excavating soils below structures such as homes will be developed during the Remedial Design phase. At this time, geotechnical and other tests will be performed to determine the specific excavation methods necessary in the case of each home. All excavations shall be planned and performed as necessary to minimize the potential for damage to the structure of concern. Methods for stabilizing structures during excavation are likely to include underpinning of existing foundations and installation of additional deep foundations to support existing foundations.

(g) The Abex Corporation commented that the Proposed Plan failed to define the required depth of excavation. The Abex Corporation further commented through an affidavit from their contractor, GEO Enginering, Inc., that excavation to the water table could pose significant risks to structures.

Response: The remedy selected in ROD requires excavation of subsurface soil (> 12" in depth) to the depth of the water table in both residential areas where lead concentrations exceed 500 mg/kg and in non-residential areas where lead concentrations exceed 1000 mg/kg. The ROD further requires that, to the extent practicable, excavation occur during the period when the water table is a the seasonally low elevation.

EPA and VDVM generally agree with the assertion in the Geo Engineering affidavit that excavating soil around and beneath homes without taking any precautionary measures would likely result in structural damage and that specific investigation near each structure would be required to reduce these risks. As part of the selected remedy, geotechnical investigations will be required as part of the Remedial Design to determine appropriate construction techniques to be used to maintain the structural integrity of each home or residential unit requiring excavation. Generic construction options that will be considered include, but are not limited to:

1. Sloping the Excavation Away from the Foundations - If the soil strength beneath the house is adequate to withstand excavation (as determined by a geotechnical engineer) and if the contamination next to the house is

not extensive, a potential option includes removing soil down to the base of the foundation footing and then sloping the excavation away from the footing on a 1:1 angle.

- 2. Underpinning the Foundations If the soil conditions are adequate to withstand excavation (as determined by a geotechnical engineer) and if contamination is present below the base of the footing, a potential option includes excavating the soil to the required depth in small sections from beneath the footing, filling the void beneath the footing with concrete, and repeating the process in the next section after the concrete has achieved adequate strength.
- 3. Deep Foundations If the soil conditions beneath the foundation are inadequate to withstand excavation (as determined by a geotechnical engineer) and/or if extensive contamination is present around/beneath the impacted residence, a potential option includes driving or drilling piles or caissons to a depth with adequate bearing (possibly 20 feet or more) at appropriate intervals around the footing and connecting the piles or caissons to the footing to transfer support of the foundations to the deeper soil.
- (h) The Abex Corporation commented that VDWM failed to take into account the potential effects of the proposed remedy, particularly with regard to the impacts of the extensive excavation that would be necessary, as compared with the effects of alternative remedies. The Abex Corporation further commented that Alternatives 3 and 4 will cause a significant disruption of the daily routine of residents.

Response: EPA and VDWM have carefully considered the short-term effects associated with the selected remedy, Alternvative 4. All of the alternatives considered, with the exception of Alternative 1 (No Action), would require earth moving operations and the use of heavy equipment. EPA and VDWM agree that the extent of earth moving activity associated with Alternative 4 is greater than that associated with all the other alternatives except Alternative 3 which requires the same level of excavation. EPA and VDWM do not agree with the Abex Corporation's assertion that the short-term effects of implementing Alternative 4 are greater than the risks to human health and the environment associated with this Site.

Measures will be taken during implementation of the remedy to ensure that the local community is protected from exposure to contamination. For example, dust generated during earth moving activities must be controlled in the

case of all alternatives and will be of particular importance in excavating highly contaminated subsurface soils as required by the selected remedy. Dust suppression and air monitoring techniques to be employed will be detailed in the Remedial Design Plans and Specifications and in the Site Health and Safety Plan. The selected remedy also requires sampling of the interior of homes before, during, and after remedial activities are performed to ensure planned dust control measures have been effective. All Remedial Design documents must be approved by EPA and VDWM before construction at the Site can begin. Approved plans will be made available to the public at the local information repository in the Portsmouth Public Library, and at the

EPA and VDWM agree that extensive excavation may be required around and, in some cases, beneath the homes in the Effingham residential area and residential units in the Washington Park Housing Project. To ensure the safety of residents during excavation in the immediate vicinity of their homes, the selected remedy includes provisions for temporary relocation. During the Remedial Design, additional soil sampling and geotechnical investigations will be required at each impacted residence to determine the full extent of excavation that will be required. Arrangements for temporary relocation will be made based on discussions with residents of each home or residential unit. Temporary relocation of residents in the immediate vicinity of the Holland Property will also be provided if EPA and VDWM determine during the Remedial Design process that the techniques to be employeed could pose a health or safety concern.

EPA and VDWM are not requiring excavation into the water table as part of the selected remedy. Therefore, implementation of the remedy will not impact the groundwater quality at the Site.

Soil Treatment and Disposal

(a)

Holland Property Builldings

(a)

Cleanup of the Abex Lot

(a) The Abex Corporation commented that the Abex Lot is not contributing to unacceptable levels of lead in the underlying aquifer and that ground water contamination

should not be a basis for rejecting a remedy of capping and institutional controls for the Abex Lot.

Response: During the RI, levels of 24 and 31 ug/l of dissolved lead were detected during two separate sampling events in a monitoring well (MW-1) located in the surficial aquifer beneath the Abex Lot. Four monitoring wells were installed in the surficial aquifer at the Site to a depth of appoximately fourteen feet. Ground water was encountered at depths of three to six feet below the surface. This surficial aquifer is designated a Class III aquifer under the Safe Drinking Water Act because of its saline content and is not considered drinkable. EPA's recommended cleanup level for lead in ground water usable for drinking water is 15 ug/l. Since, as the Proposed Plan stated, the surface aquifer is not utilized for drinking water purposes, EPA is not recommending ground water remediation as part of the OU-1 cleanup. EPA is recommending further investigation of the ground water as part of OU-2 to more fully characterize the nature of the surficial aquifer and its relationship to both underlying aquifers and the Elizabeth River. Data from the OU-1 RI clearly indicates that lead from the Abex Lot has migrated into the surficial aquifer. EPA considers this to be a valid reason for questioning the long-term effectiveness of capping the Abex Lot.

(b) The Abex Corporation commented that the surface aquifer underlying Abex is not hydraulically connected to other aquifers and that this should not be a basis for rejecting a remedy of capping and institutional controls for the Abex Lot.

Response: EPA and VDWM have reviewed the RI technical data in the Adminstrative Record and determined that a conclusion concerning the hydraulic connection between the surficial and underlying aquifers cannot be drawn. EPA and VDWM are recommending that additional information be collected as part of the OU-2 RI to (1) confirm whether there is a hydraulic connection between the surficial aquifer and potable aquifers and/or the Elizabeth River, and (2) determine whether the underlying potable aquifer(s) or the Elizabeth River has elevated lead levels due to the Site or could potentially be impacted by the Site in the future.

- V. <u>Site Investigation Activities</u>
- VI. Social and Economic Concerns
- VII. Enforcement/Legal Issues

(a) The Abex Corporation commented that the Proposed Plan failed to include a definition of "Site-related" lead. Without this definition, the Abex Corporation asserts that it is likely that the company will be required to excavate lead-contaminated soil that is unrelated to the former foundry activities and then, by necessity, be forced to submit a claim to the Fund for compensation.

Response: The 700-foot radius study area for the OU-1 RI was determined primarily through an interpretation of aerial photographs (Appendix A, Section ___)[Reference EPIC study] that depicted areas likely to have been impacted by activities associated with the Abex foundry operation. During the RI, the Abex Corporation conducted a statistical analysis of the soil data (see Appendix J of the RI report) in an effort to determine if the lead present was related to the former foundry operation or other possible sources including lead-based paint from homes, demolition fill and debris, sand blasting, and auto emissions. Through this analysis, Abex concluded that many points of lead contamination within the OU-1 study area are not attributable to the foundry. EPA evaluated this analysis and concluded that additional work would be required to identify the sources of lead contamination with certainty (Appendix A, Section _____) [Reference CDM letter]. EPA and VDWM consider this activity to be more appropriate during the OU-2 RI and recommend revisiting this issue during that activity. Since the areas being addressed in OU-1 are within approximately 700 feet of the former foundry operations, EPA and VDWM believe it is reasonable to assume that the foundry contributed, either through disposal of waste sand or through air deposition, to lead contamination The reference to "Site-related" lead found in these areas. has been eliminated in the ROD.

(b) The Abex Corporation commented that the analysis of foundry operations indicates that foundry sand disposal occurred only on the Abex Lot north of Brighton Street. The Abex Corporation further asserts that aerial photographs depict structures to the east of the foundry until the mid-1970s and to the west and south of the foundry which would eliminate the possiblity of foundry sand deposition in these areas.

Response: An evaluation of aerial photographs by the EPA Environmental Photographic Interpretation Center (EPIC) (Appendix A, Section _____) indicates potential foundry-related activities and/or foundry waste handling activities associated with Abex in the following areas:

1. An area north of the "Abex Lot" (currently part of Washington Park) (See aerial photograph dated 4/9/49

and 10/11/54)

- 2. An area west of the "Abex Lot" (currently part of Washington Park) (See aerial photograph dated 4/9/49 and 10/11/54)
- 3. An area west of the former Abex Foundry (currently the Effingham Playground) (See aerial photograph dated 9/4/37, 4/9/49, 10/11/54 and 10/26/64)
- 4. An area currently bounded by Effingham Playground and Effingham, Henry and Green Streets (part of Effingham residential area) (See aerial photographs dated 4/49/49, 10/11/54 and 10/26/64)
- 5. An area currently bounded by Effingham, Lincoln, green and Henry Streets (also part of the Effingham residential area) (See aerial photograph dated 4/9/49)
- 6. An area south of the former Abex foundry facility property (currently occupied by Randolph Street and the drug rehabilitation center) (See aerial photographs dated 4/9/49 and 10/11/54)

In addition to the above, fill material was placed within an area immediately east of the former foundry sometime between 9/4/37 and 4/9/49. In the case of all areas referenced above, including the fill area east of the site, Abex has concluded that at least part of the lead detected is attributable to their facility (See RI report).

(c) The Abex Corporation commented that aerial photographs and discussion with local residents suggest the presense of rail tracks running west from the southwest corner of the former foundry and following a route now occupied by Randolph Street. The Abex Corporation discussion with former residents revealed that "slag piles" existed near the bed of the former railway that serviced the foundry.

Response: Aerial photographs in the EPIC report discussed in the previous response indicate that railroad tracks did at one time extend into the Abex facility. These tracks appear to be present from at least 9/4/37 to 10/26/64. The aerial photograph of 10/26/64 appears to indicate a railroad car within the Abex facility property. Ground stains (See 4/9/49 aerial photograph), ground scars (See 10/11/54 aerial photograph), stacked material (See 10/11/54 aerial photograph) and mounded material (See 10/26/64 aerial photograph) all appeared adjacent to apparant former railroad tracks after 9/4/37 and are likely to be associated with the Abex and or the railway, which apparantly was providing service for Abex.

The Abex Corporation commented that EPA and VDWM failed to (d) give adequate notice of the Basis of their Decision to Select a New Preferred Remedial Alternative.

Response: The remedy selected in this ROD was identified as one of the remedial alternatives in the Proposed Plan issued on May 28, 1992 and was also identified as a remedial alternative in the Feasibility Study prepared by Abex. Proposed Plan specifically stated that "VDWM and EPA encourage the public and interested parties to review and comment on the preferred alternative, other alternatives considered in the Proposed Plan, and other documents comprising the Adminstrative Record for the Site". Furthermore, the Proposed Plan stated that "VDWM and the EPA may modify the preferred proposed alternative or select another alternative presented in this Proposed Plan based on new information or public comments". All parties had an opportunity to comment on Alternative 4 during the public comment period, which was extended from the 300 days to over copened 60 days. The selected remedy and the basis for the selection is documented in this ROD and is based on the Administrative Record, including comments received during the public comment period and any new information obtained during the comment period.

The Abex Corporation commented that EPA and VDWM disregarded (e) the recommended remedial alternative provided for in the RI/FS prepared by Pneumo Abex Corporation for the Abex Corporation Site.

Response: The objective of a Feasilibity Study (FS) is to identify and compare remedial alternatives for a hazardous substance release. The FS is not intended to "recommend" or "provide for" a particular remedial alternative. Based on an evaluation of the RI/FS prepared by Abex, other documents in the Administrative Record (including information received during the public comment period), and public comments received during the public comment period, EPA, in consultation with VDWM, has chosen Alternative 4 as identified in the Proposed Plan.

(f) The Abex Corporation commented that EPA and VDWM failed to adequately justify the basis of their decision to select a new preferred remedial alternative.

Response: The basis for the selected remedy is included in Section VIII (Summary of Comparative Analysis of Remedial Alternatives) of the ROD and further documentation concerning the change in preferred alternatives between the Proposed Plan and the ROD are included in Section XI

(Documentation of Significant Changes).

These still need to be incorporated into RS.

Additional Citizen Questions/Comments submitted by mail during the public comment period:

C: Is there a potential health threat associated with exposure to lead in the home e.g. lead accumulated in carpets, etc.

R: Exposure to lead accumulated indoors could potentially result in adverse health effects if the levels present are high enough. The selected remedy includes sampling of home interiors before, during and after the Remedial Action. Should levels of concern be idnetified, actions shall be taken to eliminate the risk of concern. (Nancy)

C: The former foundry is in a dilapidated condition and represents a safety threat. In addition, the foundry is not secured and is readily accessible to trespassers, including children, who may be exposed to high lead in the buildings. As a result, the building should be demolished and removed.

R:—The selected remedy includes the demolition and removal of the former foundry buildings in the event that this is necessary. EPA and VDWM have taken the actions necessary to restrict access to the buildings of concern until decontamination and/or demolition work begins (confirm Terry Stillman has done this!)

90 DA REPLY

- C: Residents should be tested for lead in their blood both before and after the site remediation.
- R: The selected remedy includes temporary relocation of residents who could potentially be exposed to lead released during soil cleanup acitivites. In this case, post-cleanup blood testing should be unnecessary.
- C: The preferred alternative identified in the Proposed Plan would leave elevagted lead levels below 2 feet within residential areas. This is inacceptable.
- R: The VDWM and EPA agree that elevated levels of lead should not remain between 2 feet in depth and the water table. The selected remedy shall remove all soil with lead exceeding 500 mg/kg within this zone in areas addressed by the ROD.

C: The Proposed Plan did not identify how elevated lead in soil outside of areas targeted by the Proposed Plan shall be addressed.

R: The Proposed Plan and the selected remedial action address soils likely to be contaminated by Abex based on available information. Information regarding other soils with elevated lead in the vicinity of the site have been evaluated by the EPA Removal program to determine if there is a short-term health threat and thus a basis for conducting or requiring a removal action. Based on available information, the EPA has determined there is no short-term health threat associated with these soils and therefore no basis for a removal action. These additional soils shall be investigated through continuing CERCLA activities addressing other media (e.g. groundwater, surface water) associated with the Site (Operable Unit 2).

C: The Health and Safety Plan is not effective.

R: The Health and Safety Plan for the Remedial Action shall be developed after this Record of Decision is issued and before any Remedial Action activity is underway. All comments regarding the Health and Safety Plan for removal work designed to eliminate short-term threats have been provided to the EPA removal staff. Telayed

C: Treatment should be conducted offsite to eliminate the possiblility of unacceptable lead exposure during remedial work.

R: The selected remedy includes onsite treatment. VDWM and EPA above determined that onsite treatment can be safely implemented by following a site-specific Health and Safety Plan. The selected remedy includes temporary relocation in the event that the Health and Safety Plan determines this is necessary or should excavation activities immediately adjacent to residences significantly inconvenience residents.

C: How did the surface of fill from outside sources become contaminated?

R: The surface of clean fill would likely be contaminated due to surface runoff or wind-blown deposition from areas of foundry waste deposition.

- C: All contaminated soil below houses should be removed.
- R: The selected remedy meets this objective.
- C: Fill material placed within areas addressed by this ROD may have contained elevated lead prior to placement.
- R: There is no information available regarding the quality of fill material placed in the areas of concern. Some of the fill may have contained elevated lead levels prior to placement. In addition, some of the fill material may have included lead-laden sand generated by Abex operations.
- C: Future plans for the "Effingham Playground" include installation of playground equiptment, fencing and ballfield construction. Will the Remedial Action be protective in this case?

R: The selected remedy will be protective in the case of any excavation activities down to the water table. Since the referenced activities (nor any other activities) should not involve deeper excavation, the selected remedy should be protective in this case.

Additional comments during Public Meeting of May 7, 1992

- C: The Abex Foundry facility will collapse during decontamination of the foundry.
- R: Prior to conducting decontamination, a structural analysis will be performed to determine the stability of building components. Should this analysis determine that structures cannot be decontaminated without collapse, the structures of concern shall be demolished prior to decontamination and removal.
- C: It is unclear why capping and/or institutional controls were rejected as part of the remedy.
- R: In selecting the remedy, VDWM and EPA have determined that capping does not provide a permanent, long-term remedy. While institutional controls could potentially be combined with capping to provide an adequate remedy in this regard, there is no evidence these controls are implementable. In particular, there is no authority under CERCLA or otherwise to require the imposition of deed restrictions on a property. While a landowner

may volunteer to impose such restrictions on their property (e.g. a responsible party as part of a settlement), public comments indicate private property owners will not be willing to incorporate such restrictions into their deeds. Similarly, the City of Portsmouth has expressed no interest on restricted the use of its property through a chnage in deed. Even in the event that a property owner agreed to incorporate controls in their deed, there is no guarantee that a subsequent landowner will retain the restriction in the deed.

- C: Will the selected remedy include removal of lead contaminated soil from areas which were not sampled during the Remedial Investigation? How will residents be assured that sampling will be adequate to detect all elevated lead in the soils within areas addressed by the ROD?
- R: All soil exceeding the cleanup level of 500 mg/kg lead above the water table within areas addressed by this ROD will be removed, including any such soil which still has not been identified at this time. A sampling plan shall be developed and implemented as part of the Remedial Design and /or Remedial Action to assure that all of the soils of concern are identified.
- C: Could elevated levels within a 700 foot radius of the site come from demolished homes and associated lead-based paint?
- R: This source could be a contributor to elevated lead in areas being addressed by this ROD.
- C: Is the objective of this action to retain or increase the value of the affected properties.
- R: Protection of human health and the environment is the objective of CERCLA, the NCP and the selected remedy. While restoration of property values may be a result of the selected remedy, this is not an explicit objective of CERCLA or the NCP.
- C: What are the helath risks associated with use of crawl spaces within the area of concern.

R: Nancy

Comments/questions from meeting of May 28, 1992

C: Do VDWM and EPA know when homes in the vicinity of Abex facility were built?

R: Historical aerial photographs (located in the Administrative Record) provide information regarding when particular homes were built. This information has helped and will contnue to help determine the extent of soil contamination associated with Abex.

C: Will there be additional Superfund action addressing the site after currently proposed removal work and the Remedial Action selected in this ROD are completed.

C: One resident thought the cleanup remedy was selected in the Proposed Plan.

R: The scope of a Removal Action to eliminate short-term risks was identified by EPA prior to issuing the Proposed Plan. Per the NCP and CERCLA, a Removal Action is not subject to public comment. On the other hand, the Proposed Plan identified a remedial alternative preferred by EPA and VDWM to eliminate long-term risks. After receipt of public comments on the Proposed Plan and a review any new information obtained after the Proposed Plan is issued, the final remedy is selected in a ROD.

C: Will it be possible to construct an in-ground pool after the soil remediation is complete?

R: All soil exceeding the cleanup level of 500 mg/kg above the water table shall be excavated and removed. With the possible

exception of the Abex Lot, there is no evidence that contamination of concern extends into the water table. As a result, there will be no restrictions on installing an in-ground pool.

C: After completion of excavation around or under housing, will the stability of these houses be guaranteed.

R: Wendy

C: Why not simply relocate residents rather than attempt to remediate the site?

R: CERCLA and the NCP require a permanent, protective remedy. Simple relocation will not protect future use of the properties of concern. RELOCATION ONLY APPROP IN EXECUTE ACUTE

C: A resident expressed concern that a well located in the immediate vicinity of the site is used for watering plants and that children may drink this water.

R: Children should be not be permitted to drink this water until it is tested. If elevated lead levels are present, use of this water should potentially be discontinued. There is no evidence that lead in the water will be absorbed through plant roots to a significant extent. However, the surface of any fruits or vegetables should be washed until the soil cleanup is complete. (Nancy)

C: Concern was expressed that the quality of the city water supply may be affected by the site.

R: The source of the city water supply is not affected by the site (confirm ... consider testing to determine whether lead is infiltrating pipes).

Comments	bv	the	City	of	Portsmouth	in	letter	dated	
	- 2								

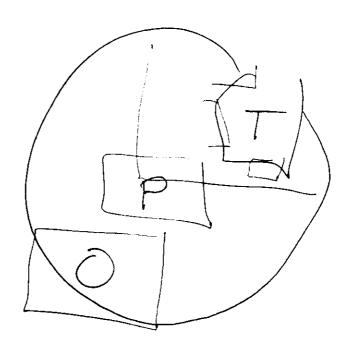
C: The remedy should be expanded to include additional lead-

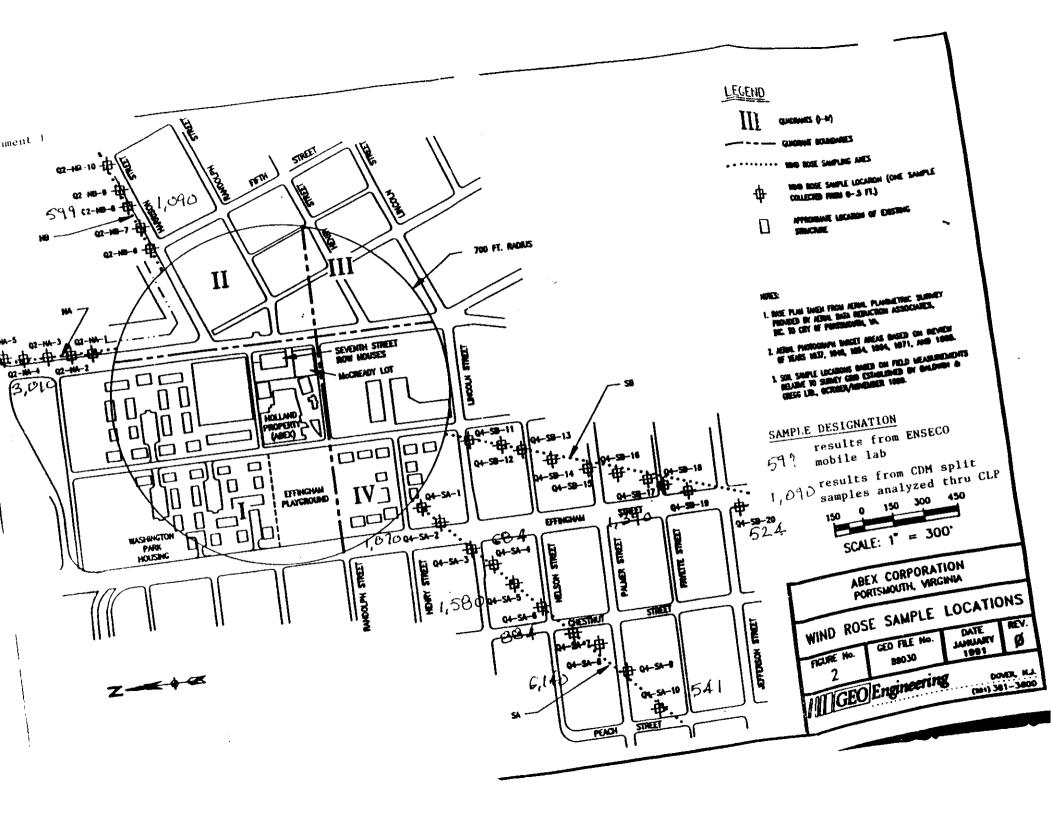
contaminated soils located in the "Vacant Lots" area east of Seventh Street.

R: The selected remedy shall address all lead-contaminated soils in the Vacant Lots, as depicted in Figure X (include), which are attributable to Abex at the time the Remedial Design is complete.

C: The "fingerprint" (canonical) analysis included in the RI/FS report by Abex may drawn incorrect conclusions regarding the have source of lead at particular locations.

R: The EPA and VDWM also do not necessarily agree with the conclusions drawn by Abex from their fingerprint (or canonical analysis). An additional evaluation of existing data shall be conducted by the EPA and VDWM to determine where Abex is the likely source of lead. Where appropriate, additional sampling may be conducted to determine the source of the lead within areas of concern. The Remedial Design for this remedy shall include conclusions regarding the source of lead in areas of addressed by this ROD.









For Your Information

JAMIE -

HARE IS COPY OF SCS REPORT.

I DID NOT INCLUDE THE
APPENDICES; IF YOU WANT
THEM, JUST LET ME KNOW.

I'LL SEND A SUMMAN OF

DUR PLANTS FOR PORTCHIRE AS
SOON AS I CAN.

manes -

CITY OF PORTSMOUTH, VIRGINIA



JOHN L. ALLEN SENIOR DEVELOPMENT REPRESENTATIVE

Department of Economic Development 801 Crawford Street Telephone: (804) 393-8804 Portsmouth, Virginia 23704-3822 Telecopier: (804) 393-5230

A CONTRACTOR OF CONTRACTOR

PHASE I ENVIRONMENTAL ASSESSMENT OF PORTCENTRE COMMERCE PARK PORTSMOUTH, VIRGINIA

Prepared For:

City of Portsmouth
Department of Economic Development
801 Crawford Street
Portsmouth, Virginia 23704

Prepared By:

SCS ENGINEERS 11260 Roger Bacon Drive Reston, Virginia 22090

June 17, 1991 File No. 288097.05

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PROJECT INFORMATION

SCS Engineers was authorized by Mr. John Allen, Senior Development
Representative for the City of Portsmouth Department of Economic
Development, to perform a Phase I environmental assessment of the
Portcentre Commerce Park. The property is located just west of the
southern branch of the Elizabeth River, in Portsmouth, Virginia (Figure 1).

PROJECT SCOPE AND LIMITATIONS

The purpose of this environmental assessment was to identify areas of potential contamination on the site or in the immediate area as part of the due diligence required by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA a.k.a. Superfund) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The following scope of work was performed for this assessment:

- Site reconnaissance on May 28 and 29, 1991;
- Review of U.S. Environmental Protection Agency's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Hazardous Waste Data Management System (HWDMS) databases dated November 1990;

- Review of historical aerial photographs; and
- Review of the following State of Virginia records:
 - UST Database dated February 1991, and
 - State Water Control Board Files.

The assessment focused on potential sources of hazardous substances that could be considered a liability due to their possible presence in significant concentrations (e.g., above acceptable limits set by the federal or state government) or due to the potential for contamination migration through exposure pathways (e.g., groundwater).

Hazardous substances naturally occurring in plants, soils, and rock (e.g., heavy metals, radon, or naturally-occurring asbestos) are not typically considered in these investigations. Similarly, construction debris (e.g., discarded concreted and asphalt) is not considered to be of concern unless observations suggest that hazardous substances are likely to be present in significant concentrations or are likely to migrate off site.

This assessment is prepared exclusively for the use of the City of Portsmouth, with the care and skill generally exercised by reputable professionals under similar circumstances, in this of similar localities. No other warranty, expressed of implied, is made as to the opinions expressed herein. Third parties use this report at their own risk.

SITE DESCRIPTION

On May 28 and 29, 1991, an SCS scientist (Mr. Charles F. Payne) performed a site reconnaissance to evaluate environmental conditions on and adjacent to the property. The property is a gridwork of streets which form approximately 25 rectangular lots arranged in an irregularly shaped, approximate 65-acre parcel (Figure 2).

The majority of the property was previously occupied by single-family housing; however, most of the land is currently vacant. WAVY-TV recently moved their studios to a new two-story brick building just within the Portcentre boundary, at the northeast corner of Portcentre Parkway and Harrison Street. The Portsmouth Business Centre is a new single-story metal building located at the southwest corner of the same intersection. A drinking water pump station is adjacent to the southwest side of this building.

Two older structures are located on Lincoln Street between Portcentre

Parkway and 5th Street. They are the New Mount Vernon Baptist Church and
the Portsmouth Daycare Center.

The church is an old two-story brick building with a three-story brick addition. The building is currently vacant and the windows are boarded up. The daycare center is a one-story brick building and is still in use.

Figure 2. Site and Vicinity Map

1

The northernmost portion of the property, at the southwest corner of 1st and Wythe Streets, was formerly a Texaco Service Station. The building has been demolished but the underground storage tanks were in place at the time of the site visit.

On June 12, 1991, SCS spoke with Mr. Joseph Grillo, an administrative analyst for the Portsmouth Department of General Services, regarding the tanks. Mr. Grillo informed SCS that the tanks had been removed by W.B. Goode, Inc. They included two 4,000-gallon gasoline tanks and one 2,000-gallon waste oil tank. Although the closure report has not been completed, the tanks were reportedly in good condition and the excavation appeared to be free of hydrocarbon contamination.

The lot at the southeast corner of the property is currently being used as parking for employees of the Norfolk Naval Shipyard. All remaining land is vacant.

Vegetation at the site consists of generally grass and scattered trees.

Exceptions are bare spots located near the intersections of Randolph and
6th Streets, and Lincoln and 3rd Streets. These areas appear to have been disturbed during earth moving activities in the area.

A portion of the land southwest of to the former Texaco service station is occupied by a small wetland area. In a letter dated May 22, 1991, Mr. Nicholas Konchuba of the U.S. Army Corps of Engineers stated that the

property west of Portcentre Parkway did not fall within Corps of Engineers jurisdiction; however, the wetland area identified above was not addressed in the letter. Although no physical measurements were taken, this wetland area appeared to be less than 1 acre, and should be exempt from protective regulations.

As shown on the Norfolk South USGS topographic quadrangle, the property virtually flat. Drainage from the site is into storm sewers located along the streets, discharging into the Elizabeth River.

SURROUNDING PROPERTY USE

Adjacent properties were observed for potential sources of hazardous substances which could affect the property. Land to the east and southeast of the property is occupied by the Norfolk Naval Shipyard. The shipyard sits on the west bank of the Southern Branch of the Elizabeth River. Some residential housing and small commercial businesses are located to the south and southwest, between the property and the shipyard.

Land immediately southwest of the property is occupied by a small cluster of apartment buildings (Southside Gardens Apartments), beyond which are more residences and scattered retail businesses. To the west are several automotive body shops (Bills Custom Auto and Roberts Bodyshop), Harrison's Moving and Storage, an abandoned brake shoe manufacturing facility (ABEX

Corporation), and several single-family homes. Further west is a residential neighborhood.

The area north of the property is occupied the T.O. Williams Company, a meat wholesale warehouse, and the Collins Company Ltd. import warehouse. Beyond these two buildings is Interstate 264 and downtown Portsmouth.

SITE HISTORY

Site history was evaluated through review of historical aerial photographs at the Portsmouth Department of Engineering & Technical Services surveyors office. Aerial photographs from the mid 1940's, 1953, and 1987 were reviewed.

In the mid 1940's the Portcentre area was occupied by high density housing. The Baptist church which currently occupies the property was present, but the daycare center was not. The shipyard area to the east and southeast appeared much as it does today. North of the property, the area now occupied by Interstate 264 was formerly the Seaboard Airline Railroad. The remainder of the surrounding land was occupied by residences and scattered businesses.

The February 28, 1953, photograph showed the property virtually unchanged from the previous photograph. Insignificant changes were noted in surrounding areas.

The 1987 aerial photograph showed the property as vacant, much as it appears today. The church, daycare center, and parking lot were present, although the WAVY-TV studio and the Portsmouth Business Centre had not yet been constructed. Surrounding properties had changed very little with the exception of those to the north where Interstate 264 had been built and downtown Portsmouth had expanded.

REGULATORY RECORDS REVIEW

- 3

CERCLIS

The CERCLIS list is obtained from an EPA database that identifies properties that have either known or suspected hazardous substance contamination. This list includes National Priorities List (NPL) and proposed NPL sites under EPA's Superfund program, and other sites. The CERCLIS files are cross-referenced by zip code. The property is located in the 23704 zip code area; 23709 and 23523 zip codes are nearby. According to the November 1990 CERCLIS list (Appendix A), there are 11 CERCLIS sites within these zip code areas. Two of these are adjacent to Portcentre, and one is within the Portcentre boundaries.

The Portsmouth Daycare Center was identified as a CERCLIS site. During background soil sampling for the adjacent ABEX Corporation CERCLIS site, up to 2,000 ppm of lead was detected; ABEX Corporation manufactured brake shoes. It is unknown if the area was sampled for potential asbestos contamination which may have resulted form the ABEX Corporation's activities. Neither of these sites were identified as Superfund Sites.

The Norfolk Naval Shipyard was identified by CERCLIS as a Superfund Site.

Fourteen contaminated areas within the shipyard were identified, including:

USN BLDG 291

USN ACID PIT C

USN PICKLING TANKS OLD GANTRY

USN PICKLING TANKS

USN WST & ORGANIC SOLVENT PIT

USN SAN LANDFILL

USN PICKLING TANKS BLDG 369

USN BLDG 79

USN WASTE OIL TANK (PIT D)

USN WASTE OIL TANK

USN CYANIDE WASTE PIT

USN HYDRAULIC FILL AREA EAST

USN CHEM WASTE PIT

ACETYLENE WASTE LAGOON

No further information on any of the three identified CERCLIS sites was available at the time of this report.

Hazardous Waste Data Management System (HWDMS)

The HWDMS list is obtained from an EPA database that identifies facilities which generate, transport, treat, store, or dispose of hazardous waste.

The HWDMS files are cross-referenced by zip code. According to the November 1990 HWDMS list (Appendix B), there are 33 facilities within the 23704 and 23709 zip code areas; twelve of these are within 1 mile of the property.

Five facilities are designated as large quantity generators; two of them, the Norfolk Naval Shipyard and ABEX Corporation, are located adjacent to the property. However, it was noted during the site visit that the ABEX Corporation facility was closed. As noted previously, both of these facilities have contamination problems which may have impacted the subject property.

The remaining seven HWDMS facilities are identified as small quantity generators. They are:

Hagwoods Inc. (3/4 mile NW)

Brighton Elementary (3/4 mile SW) Albano Cleaners (1/2 mile N)

Exxon (3/4 mile NW)

ILC (1/2 mile NW)

Koo Myung Seo (1/2 mile NW)

None of these seven facilities appears to have adversely impacted the site.

<u>Virginia UST Database</u>

The UST database, dated February 1991, contains records of registered underground storage tanks in the state of Virginia. Tank locations are referenced by zip code; the property and those within 1/4-mile are in the 23704 and 23709 zip code areas (Appendix C). There are 99 sites with registered USTs identified for these zip codes.

One of these sites (formerly the Jefferson School) was on the property, at the intersection of Jefferson and 5th Streets. However, SCS was informed by Mr. Tom Madagin of the Virginia State Water Control Board (VA SWCB), that the 5,000-gallon fuel oil UST, which was discovered during installation of an underground electrical line, had been excavated several years ago by W.B. Goode Inc; no contamination was reportedly detected. The three USTs at the former Texaco station did not appear within the database.

The Norfolk Naval Shipyard has 38 sites with a total of 84 USTs; releases associated with these USTs are discussed below. Four additional facilities with registered USTs are located adjacent to the property:

Effingham Plaza

4,000-gallon #2 fuel oil

Harrison's Moving & Storage

3,000-gallon gasoline

Suffolk District Toll Facility 1,000-gallon diesel

T.O. Williams Inc.

1,000-gallon gasoline

1,000-gallon diesel

None of these facilities were identified during a review of the (VA SWCB) pollution complaint (PC) files.

Virginia State Water Control Board (VA SWCB)

Files at the Tidewater Regional Office pertaining to reported pollution complaints (PCs) in the Portcentre area were reviewed. Five active files were found.

PC90-1215 was reported on March 3, 1990. A leaking union was discovered in an UST system at Portsmouth Boulevard and 6th Street. A site characterization report was prepared and identified minimal contamination.

PC90-1362 was reported on April 12, 1990. Soil samples from the excavation of a diesel fuel UST at Building 508 at the Naval shipyard exhibited total petroleum hydrocarbon contamination of 4,700 ppm. A site characterization report was prepared, and no remedial action was recommended. The VA SWCB has required the monitoring wells at this site be sampled quarterly for two years.

PC90-1759 and PC90-1760 were reported on June 13, 1990. Soil and groundwater contamination was noted during an assessment of Parking Lot F and Building 237 at the shipyard. A site characterization report was prepared; the source of the contamination was never identified. Passive remediation was recommended.

PC91-1274 was reported on February 22, 1990. Gasoline was released from a broken vent line during a tank test at Building 1489 at the Naval shipyard. The site characterization report has not yet been completed.

CONCLUSIONS

Based upon our visual observations, review of federal and state records, and evaluation of site history, we conclude the following:

- In addition to consulting with U.S. Army Corps of Engineers, state and local wetland authorities should be contacted prior to development of this site.
- The CERCLIS listing suggests that lead contamination may be present at the Portsmouth Daycare Center. Additionally, the unexpected discovery of the Jefferson Street School UST suggests the possibility of additional unidentified USTs on site.

- The adjacent ABEX Corporation and Norfolk Naval Shipyard may have affected the site with hazardous substances.
 - SCS recommends a more extensive RCRA and CERCLIS file review at the Virginia Department of Waste Management be performed. If the file review indicates that site contamination may be present, soil and review indicates that site contamination may be present, soil and groundwater sampling may be warranted.

- The adjacent ABEX Corporation and Norfolk Naval Shipyard may have affected the site with hazardous substances.
- SCS recommends a more extensive RCRA and CERCLIS file review at the Virginia Department of Waste Management be performed. If the file review indicates that site contamination may be present, soil and groundwater sampling may be warranted.

Jay



PEOPLE AGAINST RUTHLESS INJUSTICES IN THE SYSTEM

P.O. Box 6154, Portsmouth, Virginia 23703 • 804/686-0777 • 490-6718(Voice Mail)

January 6, 1993

Ms. Amelia Libertz Outreach Grants Coordinator and Ms. Leanne Nurse United States Environmental Protection Agency Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

Dear Mesdames Libertz'and Nurse:

Enclosed please find all of the information you requested to complete the requirements on the grant proposal for the Abex Superfund site in Portsmouth. I apologize for the delay but in addition to the holidays causing people to disappear, my time has been in great demand lately. I am non-stop busy from 20 to 21 hours per day. I don't know what is going on. I quit my fulltime job so that I could have more time and now it seems as though I have less time.

As you know I somehow managed to misplace the Intergovernmental Review approval. I have looked everywhere I can think of. I will have to try to get another one and forward it immediately. Thank you for your patience.

I look forward to hearing from you soon. Have a prosperous new year.

Grants .

Section

REAL COLOR

Sincerely,

Jo/T. Silva, President and

Executive Director

P.A.R.I.S. 7, Ltd.

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PART II

Form Approved.
OMB No. 2030-0020
Approval expires 7-31-89

PROJECT APPROVAL INFORMATION

Item 1. Does this assistance request State, local, regional, or other priority rating? Yes X No	Name of Governing Body
Item 2. Does this assistance request require State or local advisory, educational, or health clearances? Yes X No	Name of Agency or Roard
Item 3. Does this assistance request require clearinghouse review in accordance with Executive Order 12372? X Yes No	(Attach Comments)
item 4. Does this essistance request require State, local, regional or other planning approval? X YesNo	Name of Approving Agency
Item 5. Is the proposed project covered by an approved comprehensive plan? X No	Check one: State Local Regional Location of Plan
Item 6. Will the assistance requested serve a Federal installation? Yes X No	Name of Federal Installation
Item 7. Will the assistance requested be on Federal land or installation? Yes	Name of Federal Installation
Itam 8. Will the assistance requested have an impact or effect on the environment? X YesNo	See instructions for additional information to be provided. This assistance is intended to facilitate site response actions.
ftem 9. Has the project for which assistance is requested caused, since January 1, 1971, or will it cause, the displacement of any individual, family, business, or farm? X Yes No	Number of: Individuals Families Businesses Ferms
Item 10. Is there other related assistance on this project previous, pending, or enticipated?	See instructions for additional information to be provided.
Item 11. Is project in a Designated Flood Hazerd Area?X_YesNo EPA Form 5700-33 (Rev. 11-86)	

FUNDING									
(1) FEDERAL	(2) NON-FEDERAL	(3) TOTAL	MAN- YEARS						
s	s	s							
See Detailed	Budget in Part IV,	Section 2(B)							
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	\$ See Detailed	s s See Detailed Budget in Part IV,	(1) FEDERAL (2) NON-FEDERAL (3) TOTAL S See Detailed Budget in Part IV, Section 2(B)						

DATE

9/13/92

			
			Form Assessed
≎ EPA			OM8 No. 2000-0453 Approval expires 10-31-87
APPLICANT'S NAME		ASSISTANCE APPLICATION NUMBER	
P.A.R.I.S., L	rD.		
APPLICANT'S ADDRESS	A.R.I.S., LTD. LICANT'S ADDRESS O. BOX 6154 RTSMOUTH, VA 23703 SECTION I — INSTRUCTIONS The applicant must complete and submit a copy of this form with each application for EPA Assistance. If the applicant has certified its procurement system to EPA within the past 2 years and the system has not been substantially revised, complete Part A in Section II, then sign and date the form. If the system has not been certified within the past 2 years, complete Part B, then sign and date the form. SECTION II — CERTIFICATION affirm that the applicant has within the past 2 years certified to EPA that its procurement system complies with 40 CFR Part 33 and that the system meets the requirements in 40 FR Part 33. The date of the applicant's latest certification is: ased upon my evaluation of the applicant's procurement system, I, as authorized representative of the opticant: (Check one of the following:) 1. CERTIFY that the applicant's procurement system will meet all of the requirements of 40 CFR Part 33 before undertaking any procurement action with EPA assistance		
P.O. BOX 6154 PORTSMOUTH, VA	A 23703		
	SECTIO	NI - INSTRUCTIONS	
applicant has cert substantially revis	ified its procurement system sed, complete Part A in Section	to EPA within the past 2 years and the son II, then sign and date the form. If the s	system has not been
	SECTIO	N II — CERTIFICATION	
PROCUREMENT SYSTEM CERTIFICATION APPLICANT'S NAME P. A. R. I. S. , LTD. APPLICANT'S ADDRESS P. O. BOX 6154 PORTSMOUTH, VA 23703 SECTION I — INSTRUCTIONS The applicant must complete and submit a copy of this form with each application for EPA Assistance. If the applicant has certified its procurement system to EPA within the past 2 years and the system has not been substantially revised, complete Part A in Section II, then sign and date the form. If the system has not been certified within the past 2 years, complete Part B, then sign and date the form. SECTION II — CERTIFICATION A. I affirm that the applicant has within the past 2 years certified to EPA that its procurement system complies with 40 CFR Part 33 and that the system meets the requirements in 40 CFR Part 33. The date of the applicant's latest certification is: B. Based upon my evaluation of the applicant's procurement system, I, as authorized representative of the applicant: (Check one of the following:) 1. CERTIFY that the applicant's procurement system will meet all of the requirements of 40 CFR Part 33.			
B. Based upon my ev	aluation of the applicant's p		epresentative of the
before unde	ertaking any procurement acti	ion with EPA assistance	ents of 40 CFR Part 33
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			Approval expires 10-31-87 EPA Assistance. If the e system has not been e system has not been e system has not been the ments of 40 CFR Part 33
			NUMBER Tion for EPA Assistance. If the and the system has not been in. If the system has not been in. Turement into in 40 MONTH/YEAR Thorized representative of the requirements of 40 CFR Part 33 Applicant agrees to in Appendix A, and
follow the re	equirements of 40 CFR Part	33, including the procedures in Append	lix A, and
allow EPA p	reaward review of proposed p	procurement actions that will use EBA as	sistance.

SIGNATURE

TYPED NAME AND TITLE

Jo T. Silva

PART IV - NARRATIVE PROJECT STATEMENT

Section 1 (Group Qualifications)

A. Group Eligibility

- 1. This group is not a part of any of the categories described in this section.
- 2. There are approximately 77 participating members in P.A.R.I.S., Ltd. It is made up of two groups the Washington Park Coalition and the Black Concerned Citizens who united with P.A.R.I.S., Ltd. to represent the members of the Superfund Site. P.A.R.I.S., Ltd. is a nonprofit organization which was formed in 1991 to assist underprivileged citizens who were victims of injustices in the system because they could not afford to fight for their rights. The Black Concerned Citizens was formed in 1982 and has a track record in the City of Portsmouth for its efforts in representing underprivileged citizens. The Washington Park coalition was formed in 1992 to marshall legal representation in the case of Mourning, et. al v. ABEX.

B. Responsibility Requirements

- Administrative and Management Capabilities: P.A.R.I.S is pending nonprofit incorporation status. It has existing administrative structures that oversee and guide activities. It will be managed by a minimum of a four-person composed of the executive committee President, Treasurer, Secretary and a member of the Bar. One member of the executive committee, Ms. Jo T. Silva, has been designated as Executive Director of the Coalition. The Executive Director will direct the technical advisor and oversee the entire project. president and the treasurer will be responsible for all financial oversight.
- Resources for Project Completion: To complete our technical assistance project we will require the services of a technical advisor for the three-year period. At this time, the total estimate budget for the entire project will be dependent upon the length of the clean-up process. However, it is presently anticipated to be a minimum of \$62,500. Of this amount, the federal share will be \$50,000. We will match the federal share of \$50,000 with \$12,500 - 20 percent of the total project cost with a combination of cash and in-kind contributions. portion will come from fund-raising activities such as a walkathon and speakers' bureau. In-kind contributions will come space, planning activities, executive from donated meeting committee meetings, time spent managing the technical advisor, accounting services, writing and editing services for newsletter and/or magazine column that will be published monthly and disseminated among the residents, and time required to putout mailings. A local proprietary school (which has at least five faculty members on the task to be will donate meeting space

for use by the Coalition on an as-needed basis throughout the life of the project. A certified public accountant will donate services to provide accounting assistance to P.A.R.I.S., Ltd. A local freelance writer and a local newspaper editor (e.g., The Citizen's Press, The New Journal and Guide) will design, write and edit a newsletter devoted solely to the site and the technical assistance project. A detailed budget including a breakdown of the federal and matching shares is enclosed.

- 3. Performance Record: Although neither of the funding groups (Washington Park Coalition, Black Concerned Citizens, nor the new combined organization, P.A.R.I.S., Ltd., previously have received federal funds, we believe the group can satisfactorily complete the proposed TAG project because of the individual successes of its members.
- 4. Accounting and Auditing Procedures: Our financial management system complies with generally accepted accounting procedures. We will establish and maintain a separate bank account and a general ledger solely for the management of the Technical Assistance Grant. The President, Jo T. Silva and the Corporate Attorney and Treasurer, will maintain all financial records related to the grant. These records will be stored in a central file in the same office where corporate meeting will be held. A phone log will be maintained by the corporation officers. In addition, the technical advisor will be expected to keep a telephone log and other records of his/her activities and expenditures.
- A member of P.A.R.I.S., Ltd., is an accountant and has volunteered to assist in the financial oversight of grant funds. He will advise the group on completing financial reports required by EPA and the state. In addition, an outside accounting firm will be brought in to perform an independent audit every other year as required by federal regulations.
- Incorporation: P.A.R.I.S., Ltd. has reserved its name with the State Corporation Commission and is presently incorporated under the rules of the State Corporation Commission and Chapter 10. Chapter 13.1 of the Code of Virginia. P.A.R.I.S., Ltd. 15 domiciled in the State of Virginia.
- 6. The primary areas of past involvement have been health and environmental concerns. The group has had meetings with EPA and local government officials regarding environmental hazards at the site dating back to June 7, 1992. Activities conducted by the group included: lead-blood test screening, legal damage claims, public forums, press conferences, court appearances, moral support groups, stress management and mapping the contamination.
- 7. Drug-Free Workplace Policy: Yes. Our group promises (1977) engage in illegal drug-rolated activities while carrying activities using TAG funds



1. Health Considerations: It is unknown how many group members have actually experienced health effects from contamination at the ABEX site. However, the approximate number of individuals located in that area who could have been affected are at least 8,000.

Concern about contaminated playground areas, housing and the long term effects upon the children, pregnant women and others affected by the superfund site which EPA has designated as an NPL status.

Consolidation/Representation:

The P.A.R.I.S., Ltd. organization has a diverse membership which represents the community's interest and concern, in this instance, particularly the ABEX Superfund site. P.A.R.I.S., Ltd. members believe that this organized effort will positively affect both members of the group and individuals in the community by providing a single contact from which community concerns can be addressed. P.A.R.I.S., Ltd. organization does not have a long history with the ABEX Superfund Site, but its composite organizations and individual members have been active in dealing with site issues since the site was listed in the National Priorities List in 1986.

3. Tasks for Technical Advisors:

The primary purpose of the tasks to be performed by the technical advisor is to help members of the ABEX Superfund site, represented by P.A.R.I.S., Ltd., better understand the technical information, data, reports, designs and oral presentations provided by EPA and the state in the course of studying and conducting remedial activities at the ABEX Superfund site. By interpreting, analyzing, and evaluating the information, the technical assistance project is to help us help EPA provide remediation, and relocate affected citizens.

4. Impormation Sharing:

To keep community members informed of activities at the ABEX Superfund site, P.A.R.I.S., Ltd. will produce 6 issues of a newsletter containing information generated by the technical advisor(s). A minimum of 300 copies of this newsletter will be printed for each issue: 200 copies will be distributed by hand to interested community members and 100 copies will be mailed directly to P.A.R.I.S., Ltd. members and the local press. In addition, all final document, produced by technical advisor(s) will be sent to EPA to be placed in the information repositors established for the site at localions accessible to interested community members. To make all community involvement activities related to the site, P.A.R.I.S., Ltd. will make all its general monthly meeting. To the public. P.A.R.

Ltd. will also participate in local television and radio talk shows which are designed to address citizen's issues. Additionally, after record of decision, F.A.R.I.S., Ltd. will hold a community forum to brief the public on the technical advisor's findings. All meetings will be publicized by newspaper ads, radio public service announcements and on community T.V.

5. Economic Environmental Considerations:

See attached copy of Baseline risk assessment for the ABEX Site which addresses, in detail, this issue.

Section 2 is enclosed.

Narrative Statement of Work

Remedial Investigation (Estimate: 165 hours, including one trip)

The advisor's first task will be the RI work plan, sampling plan, and quality assurance and quality control (QA/QC) plan. Special attention will be given to how EFA plans to investigate the migration of contamination from the Abex Superfund Site into the Rolling River. The advisor will be expected to attend and participate in a proposed meeting between EFA Staff and residents scheduled for the start of the RI. Upon completion of the RI report, the advisor will be expected to help the Coalition evaluate the results. Another key document to be reviewed by the advisor will be the risk assessment (if available).

Feasibility Study (Estimate 285 hours, including one trip)

The advisor will complete a detailed analysis of proposed remedies in the draft feasibility study and Coalition then brief the an its contents. Additionally, the advisor will prepare a written report to aid the Coalition's preparation of public comments. specifically addressing the proposed cleanup measures. The advisor will make a presentation on his findings at a special community forum held by the Coalition prior to EPA's public meeting. The advisor will attend and participate in EPA's public meeting to be held in Washington Park during the public comment period. The single, two-day trip during this period will combine both the Coalition briefing and the public meeting.

The advisor will be expected to analyze the health assessment thoroughly to ensure that public health is being adequately considered. The advisor will prepare a summary report on the potential health risks posed by the site and how EFA proposes to address these risks. The advisor also will examine the ROD and prepare a memorandum the chosen method ٥f cleanup. mn Additionally, this report will describe how major comments submitted by the Coalition and the general community were addressed by EPA in the responsiveness summary.

Remedial Design (90 hours)

he technical advisor will be conscient to carry out functions during this stage. The officer will review the final design to ensure that the design is consistent with Record the the design is the advisor will be expected to the former fundings in memoranda submitted to the design is consistent. The expected to the former fundings the memoranda submitted to the design is the first time.

will be published in the Coalition newsletter. The memoranda also will be available in the information repository.

Remedial Action (Estimate: 70 hours)

During the remedial action phase, the advisor will be expected to review the final inspection report. Within 30 days of the completion of the cleanup, the advisor will prepare a final report summarizing his/her findings. This report will be published in the Coalition's newsletter.

PART V ASSURANCES

The Applicant agrees and certifies that he or she will comply with the regulations, policies, guidelines, and requirements, including OMB Circulars No. A-102 and A-87, and Executive Order 12372, as they relate to the application, acceptance, and use of Federal funds for this Federally assisted project. Also, the Applicant agrees and certifies with respect to the grant that:

- It possesses legal authority to apply for the grant; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
- 2. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color, or nation origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement.
- 3. It will comply with Title VI of the Civil Rights Act of 1984 (42 USC 2000d) prohibiting employment discrimination where (1) the primary source of a grant is to provide employment or (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.
- 4. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and federally assisted programs.
- 5. It will comply with the provisions of the Hatch Act which limit the political activity of employees.
- 6. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to employees of institutions of higher education, hospitals, other non-profit organizations, and to employees of State and local governments who are not employed in integral operations in areas of traditional governmental functions.
- 7. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.

- It will give the grantor agency and the Comptroller General through any authorized representative the access to and the right to examine all records, books, papers, or documents related to the grant.
- It will comply with all requirements imposed by the Federal grantor agency concerning special requirements of law, program requirements, and other administrative requirements.
- 10. It will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.
- 11. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved Denamber 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards.
- 12. It will comply with all applicable requirements of Section 13 of the Clean Water Act Amendments of 1972 (P.L. 92-500), if the grant is awarded under any grant authority of that Act, which provides that no person in the United States shall, on the ground of sex be—excluded from participation in—be denied the benefits of, or be otherwise subject to discrimination under any program or activity under the said Clean Water Act Amendments for which the applicant receives financial assistance and will take all necessary measures to effectuate this agreement.

EPA Form 5700-33 (Rev. 11-86)

MBE/WBE "FAIR SHARE" NEGOTIATION WORKSHEET

In accordance with Agency policy, recipients of EPA financial assistance through grants and cooperative agreements must ensure that at least eight (8) percent of all procurements awarded in support of authorized programs be made available to businesses or other organizations owned or controlled by socially or economically disadvantaged individuals, including Historically Black Colleges and Universities. To comply with this policy, recipients must negotiate a "Fair Share" objective prior to receiving assistance. A "fair share" objective is:

An amount of funds commensurate with the total project funding, demographic factors and the availability of minority and women's businesses. The fair share does not constitute an absolute goal, but a commitment on the part of the recipient to attempt to use minority and women's businesses by carrying out the six affirmative steps in 40 CFR 33.240.

As stated before, the fair share objective applies to <u>all</u> procurements made in support of authorized programs. Therefore, the budget items listed as supplies, equipment and contractual represent the base amount against which the negotiated percentage is applied. The following chart should be used to develop your proposed fair share objective:

Budget Items	Estimated Procurement Dollars (a)	MBE % (b)	Total MBE Dollars (a x b)	WBE ·% (c)	Total WBE Dollars (a x c)
Supplies	10,000	75	7,500	20	1,500
Equipment	22,250	75	16,687.50	20	3,337.50
Contractual	30,250	75	22,687.50	20	4,537.50
Total	62,500	75	46,875	20	9,375.00

	If the	fair	share	objec	tive i	s not	appli	cable	to	this	award,	or	certain	budget	items
listed a	bove,	plea	ise ex	plain '	why:										
		•		-	•	,									
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EPA reserves the right to either accept the recipient's proposed fair share or to renegotiate a fair share based upon the conditions cited above. If you have any questions about this form, please contact Mary Zielinski, the Small and Disadvantaged Business Utilization Officer, at 215-597-6795

Authorized Signature (Tr)



EPA Form 5700-40 (11-00)

EPA Project Control Number

United States Environmental Protection Agency Washington, DC 20480

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

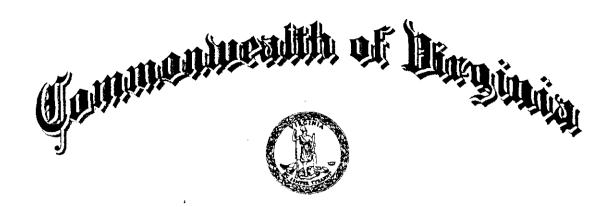
The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezziement, theft, forgery, bribery, faisification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civiliy charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Jo T. Silva. Executive Director Typed Name & Title of Authorized Representative	
165Da	9/13/92
Signifiare of Authorized Representative	Contro
I am unable to certify to the above statements. My explane	tion is attached.





STATE CORPORATION COMMISSION

Richmond, December 23, 1992

This is to Certify that the certificate of incorporation of

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date:

Occumber 23, 1992



State Corporation Commission

William J. Bridge Glerk of the Commission

Detailed Budget For Three Year Budget Period

1. Federal Share:

*	Labor (600 hours at \$75 per hour) 45,000
*	Travel (site visits and attedance at Washington Fark and Vicinity Coalition Public Hearings) -Mileage (\$.21 per mile) 1,200 -Lodging and Meals (\$100 per diem) 400
*	#46,600 Other Costs - Telephone 2,520 - Postage 600 - Copying (Reports/Memos \$.10 per page) 280
	\$3,400

Subtotal Federal Share \$50,000

2. Matching Share:

- Out-of-Pocket Expenditures ("cash")		
- Incorporation	\$ 500)
-Newsletter (printing and postage for 6 issu	ues,	
300 copies each at \$1/copy	1,800)
-External Audit (20 hours of accounting	500)
@ \$25 per hour)		
-Supplies	300)

*	In-Kind Contributions	
	- Writing newsletter (6 issues/40 hours	
	p er issue @ \$20 per hour)	\$4,8 00
	- Meeting Space (\$180 per year)	540
	- Accountant (132 hours at \$23.25 per hour)	3,070
	- Newsletter Editor (at \$20 per hour)	900
	- Xeroxing newsletter (6 issues/1 page each/	
	300 copi es/. 05 per page)	90

Subtotal Matching Share = \$12,500

TOTAL (Federal and Matching) = \$62,500

Attachment 1.B.

PROPOSED SCHEDULE OF TASKS AND COSTS FOR TECHNICAL ADVISIOR(S) (Sample) (Format Optional)

	Schedule/Tasks	Review Report	Propare Memo/ Report	Attend Meeting	# of Hours	Cost at \$/hour*	Total Cost of Advisor	Total a		
YEAR 1	Remedial Investigation (RI) • Review work plan	X	X		30 25	2,250 1,875				
	 Issue evaluation memo Attend RI klokoff public meeting 			X	8	600				
	 Review various RI reports (e.g., rlsk assessment, 	Χ	X		52	3,900				
	QA/QC plan, sampling plan) Review RI report and prepare RI evaluation report	X	X		50	3,750	12,375	165		
	- Feasibility Study (FS)									
	 Review health assessment and prepare report 	X	X		60	4,500				
YEAR 2	 Review draft FS and prepare FS evaluation 	Х	Х		60	4,500	9,000	* .		
	Feasibility Study (FS.) Continued • Brief Coalition on FS and attend FS meetings			X	80	6,000				
	 Review Coalition comments on FS 	X			15	1,125				
	 Review ROD and prepare summary memo 	X	Х		60	4,500	11,625	165		
YEAR 3	Remedial Design (RD) • Review pre-final and final design and prepare design evaluation memo.	X	×		90	6,750	6,750	90		
	Remedial Action (RA)	· i			70	5,250	1	70		
	 Review pre-final and final inspection reports and prepare cleanup evaluation report 	X	Х		. •	-,				
					Total C	ost of Advis	or \$ 45,000)		
	Travel ! Site visits and aTTENDANCE AT Washington Park and Homeowners meeting0 • Mileage (\$.21 per mile) • Lodging and Meals (\$100 per dlem) Total Travel Costs									
	Administrative Costs Telephone Postage						\$ 2,520 \$ 600))		
	Copying						\$ 280			
				Т	otal Admi	nistrative Co	sts \$ 3,400)		
					TOTAL	Federal Sha	ra) \$ 50,000			

From: Amelia Libertz (ALIBERTZ)

To: LNURSE

Date: Tuesday, August 18, 1992 4:59 pm

Subject: Abex

Received a phone call at 5:00 P.M. from Rafiq Zaidi, thanking me for the quick response to his request for a handbook.

He informed me that a Letter of Intent was mailed to us on August 10. The site is Abex and the citizens' group is "PARIS" - People's Assistance in Reference to Injustice Within System, representing Washington Park residents.

The letter of intent was mailed following directions in the Handbook, which reads: Region III Superfund.

Do you have any suggestions on how I can locate the letter? Where would be the best place to start? Is there a group I could LAN?

I told Mr. Zaidi that I will personally call him as soon as I have the letter in hand.

Please LAN ALIBERTZ your response.

Thanks.

Mealie

22317

Abex Corporation

Spoke with Gretchen Piraseth on August 17 at 2:00.

She requested that a TAG Handbook be sent via FEDEX to:

Mr. Rafiq Zaidi 3106 Hull Street Portsmouth, VA 23704

804-397-4509

Also that two copies be sent via regular mail to:

Gretchen Piraseth
U.S. Department of Justice
Environmental and Natural Resources Division
P.O. Box 23986
Washington, DC 20026-3986

Gretchen's number is 514-4767. $(\lambda \circ \lambda)$

The three copies were sent the same day. (Accompanying letters attached.)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

August 17, 1992

Ms. Gretchen Piraseth
U.S. Department of Justice
Environmental and Natural Resources Division
P. O. Box 23986
Washington, DC 20026-3986

Dear Ms. Piraseth:

In response to today's telephone conversation, enclosed are two copies of 1) the Technical Assistance Grant (TAG) Handbook, 2) a quick reference fact sheet, and 3) for your file, a copy of the letter sent to Mr. Zaidi.

The handbook has been designed to guide interested parties through the entire TAG Program, from applying for the grant to selecting a technical advisor and managing the project.

If I can be of further assistance, please contact me at (215)5597-9817.

Yours truly

Amelia C. Libertz

Conclia C. Libertz

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III 841 Chestnut Building Philadelphia, Pennsylvania 19107

August 17, 1992

Mr. Rafiq Zaidi 3106 Hull Street Portsmouth, VA 23704

Dear Mr. Zaidi:

In response to a telephone conversation with Gretchen Piraseth, Department of Justice, I have enclosed a Technical Assistance Grant (TAG) Handbook and a quick reference guide sheet. The Handbook is designed to guide you through the entire TAG Program, from applying for the grant to selecting a technical advisor and managing your TAG project.

Please feel free to contact me at (215)597-9817 at any time for information or assistance.

Yours truly,

Amelia C. Libertz

Enclosure

LETTER OF INTENT

P.A.R.J.S. P.O. BOX 5154 Portsmouth, VA 23705

August 10, 1992

TAG Project Officer Superfund Office EPA - Region 3 Mail Code: 3HW02 841 Chestnut Street Philadelphia, PA 19107

Dear Sir/Madam:

This letter has been prepared by P.A.R.I.S. to announce this group's intention to apply for a Technical Assistance Grant. The coalition, which is comprised of the Washington Park resident in nearby homeowners and former residents of the ABEX site, plans to use any awarded grant funds for obtaining assistance in interpreting technical information generated during the Superfact cleanup process at the Abex site in Portsmouth, Virginia.

Please send an application and other relevant materials to the Abex site in care of Ms. Jo F, Silva at the address listed above. The group hopes to file its application by August 31, 1992.

Sincerely,

To T. Silva Executive Director

8.74.

P.A.R.I.S.

Teople Against Ruthless (niustices in the System)

Glasser and Glasser

Attorneys and Counsellors at Law

Richard S. Glasser Michael A. Glasser H. Seward Lawlor Melvin R. Zimm William H. Monroe, Jr." Jack O. Kingsley Charlotte E. Vaughn Stephen A. Lean Richard J. Serpe "Also admitted in D.C. ""Also admitted in LA. and TX.

600 Dominion Tower 999 Waterside Drive Norfolk, Virginia 23510-3300

(804) 625-6787

Writer's Direct Dial No.

August 4, 1992

Bernard Glasser 1910 - 1983

Telecopier (804) 625-4115

Peninsula (804) 722-3110

Amelia C. Libertz U.S. Environmental Protection Agency, Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

> Re: Superfund Technical Assistance Grant Handbook

Dear Ms. Libertz:

I thank you for the superb service and courtesy you have extended this firm. Your help in our efforts to expeditiously obtain the above document has saved this office considerable research time, in turn saving our clients money.

I hope that we may continue to rely on you for your services and professionalism. With kind personal regards, I am,

Very truly yours,

GLASSER AND GLASSER

Chartes J. Childress Legal Assistant

2 seded inper (also 1 to Por Sprain Whedy Mills) Elig Fire

GLASSER AND GLASSER ATTORNEYS AT LAW 600 DOMINION TOWER 999 WATERSIDE DRIVE NORFOLK, VIRGINIA 23510

NOTICE: THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMP FROM DISCLOSURE.

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THANK YOU!

TO: U.S. Environmental Protection Agency Region III: Superfund Branch

.

ATTN: Amelia Libertz (EA-21)

PAGES: 2

DATE: 7/31/92

(incl. this pg.)

FAX #: (215) 597-0961

PHONE # (804) 625-6787

EXT: 351

FROM: CHARLES J. CHILDRESS

FAX # (804) 625-4115)

SUBJECT: Superfund Technical Assistance Grant Handbook

(OSWER Directive 9230.1 03)

MESSAGE: Please find attached computer copy of the letter sent your organization. I thank you for assisting me in my efforts to expedite receipt of subject handbook. With warm regards, I am,

Very truly yours,

_ Abeb S. d. Site Portamouth, Va

GLASSER AND GLASSER ATTORNEYS AT LAW 600 DOMINION TOWER 999 WATERSIDE DRIVE NORFOLK, VIRGINIA 23510

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THANK YOU!

TO: U.S. Environmental Protection Agency

Region III: Superfund Branch

ATTN: Amelia Libertz (EA-21)

FAX #: (215) 597-0961

FROM: CHARLES J. CHILDRESS

DATE: 7/31/92

PAGES: 2 (incl. this pg.)

PHONE # (804) 625-6787

EXT: 351

FAX # (804) 625-4115)

SUBJECT: Superfund Technical Assistance Grant Handbook

(OSWER Directive 9230.1 03)

MESSAGE: Please find attached computer copy of the letter sent your organization. I thank you for assisting me in my efforts to expedite receipt of subject handbook. With warm regards, I am,

Very truly yours,

? chaid copy-

- Abel S. d. Site Portamenth V.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III

841 Chestnut Building Philadelphia, Pennsylvania 19107

Charles J. Childress, Esq. Glasser and Glasser Attorneys at Law 600 Dominion Tower 999 Waterside Drive Norfolk, VA 23510

Dear Mr. Childress:

In response to our telephone conversation of July 31, 1992, enclosed is the Superfund Technical Assistance Grant Handbook (OSWER Directive 9230.1 03).

If I can be of any further assistance, please feel free to call me at (215)597-9817.

Sincerely,

Amelia C. Libertz

Enclosure

3106 Hull Street
Portsmouth, Virginia 23704
July 28, 1992

Mrs. Michael Gunn, Docket Clerk United States Eastern District Court Civil Division

Re: Case # 2:92 CV 522

Dear Mrs. Gunn:

Please be advised that the enclosed notice was mailed to each defendant, as directed, via United States Postal Service this 28th day of July 1992.

Sincerely,

Desiree Reeves, Plaintiff

cc. Stephen Paimer, Atty for Abex Corp. 35 West Wacker DR. Chicago, Illinois 60601 - 9703

William Reilly, Administrator EPA 401 M. Street, S.W. Washington, D.C. 20460

Jack Kemp, Secretary Education and Housing Department of Housing and Urban Development 451 - 7th Street, S.W. Washington, D.C. 20410

LeAnn Nurse, Regional Representative EPA 105 South 7th Street Philadelphia, Pennsylvania 19106 - 3392

Danny Cruise Portsmouth Redevolpment and Housing Authority Portsmouth, Virginia 23704

Ann D. Troutman
Virginia Superfund Program
Department of W.M.
11 th Floor - Monroe Building
101 N. 14th Street
Richmond, Virginia 23219

MAECROPL - CEO Engineering Washington and Randolph Streets Portsmouth, Virginia 23704

Glasser and Glasser Attorneys and Counsellors at Law

Richard S. Glasser Michael A. Glasser H. Seward Lawlor Molvin R. Zimm William H. Monroe, Jr. * Jack O. Kingsley Charlotte E. Vaughn Stophon A. Leon Richard J. Serpe**

"Also edmitted in D.C.
"Also edmitted in L.A.
"Also edmitted in Texas

600 Dominion Towor 999 Waterside Drive Norlolk, Virginia 23510-3300

(804) 625-6787

Writer's Direct Dial No.

640-9386

Bernard Glasser 1910-1963 Telecopier (804) 625-4115 Peninsula (804) 722-3110

July 23, 1992

EPA Region 3: Superfund Branch 841 Chestnut Building Philadelphia, Pennsylvania 19106

Re: Superfund Technical Assistance

Grant Handbook (OSWER Directive 9230.1 03)

Gentlemen/Ladies:

Please provide us with a copy of the above-referenced material at your earliest opportunity.

If there is any charge for this material, please enclose your invoice with the copy and we will forward our check to you by return mail.

Thanking you in advance for your prompt attention to this important matter, I remain,

Very truly yours,

GLASSER AND GLASSER

Melissa A. Colc Executive Assistant